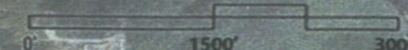


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RANCHO SANTA FE

Geological Constraints

- shear zones
-  suitable for development
-  restricted for development
-  not recommended for development



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Figure 11

II. SUMMARY OF USES

Rancho Cielo proposes a mixture of residential land use densities supported by open space areas and served by necessary community support systems. The land use areas generally relate to topographically and environmentally unconstrained areas with the clustered estates extended to areas with moderate constraints (Figure 12). Also see large land use plan in pocket.

The Village Estates are located near the middle of the Rancho Cielo project. This area will be the heart of the Rancho Cielo community and is more fully described below. A neighborhood commercial center and fire station are located at the westerly entrance along Del Dios Highway to serve Rancho Cielo residents as well as adjoining developments' public safety and shopping needs.

Extending along topographic limitations are the Country Estates and planned developments. These areas represent the largest number of residential units in Rancho Cielo and are surrounded by permanent open space greenbelts with a coordinated riding and hiking trail system.

Supporting the residential areas are two Community Recreation areas and private recreational facilities within the planned developments, Village Estates and individually subdivided areas.

It should be noted that this plan is a general representation of the lot pattern and road locations. In future phases when maps are submitted, if the design of those maps is different from the Specific Plan those maps shall take precedent without requiring further Specific Plan amendments. Reasons for difference are limited to more refined topographic data, reduction in road length, or redesign to further eliminate environmental impacts.



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Land Use Plan

ce	country estates
SPA	562 units 1529 acres 0.4 units/ac
Estate	77 units 186 acres 0.4 units/ac
Total	639 units 1715 acres 0.4 units/ac
pd	planned development
SPA	38 units 158 acres 0.2 units/ac
ve	village estates
SPA	42 units 20 acres 2.1 units/ac
vc	village center
	5 acres with emergency helipad
nc	neighborhood commercial
	28 acres
os	open space
	1650 acres
cr	community recreation
	9 acres
wt	water reclamation facility
	2 acres
TOTAL: 2671 ACRES	

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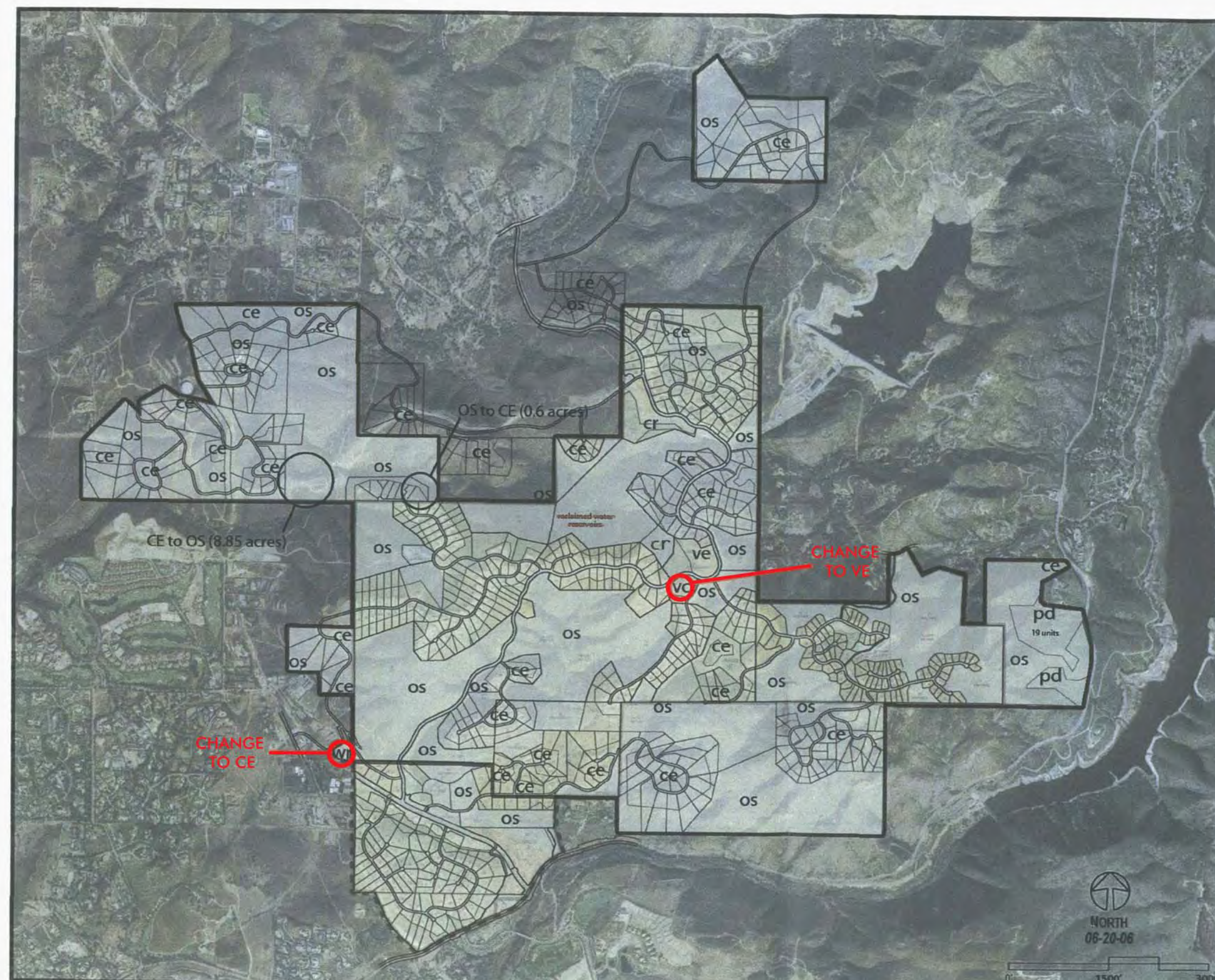


Figure 12

A. Residential

The residential areas designated as SPA and Estate Land Uses within the Rancho Cielo Specific Plan are comprised of Village Estates, Country Estates and planned developments. The total land area used for residential uses is 873 net acres. Village Estates are ~~clustered units located. These units are~~ planned on ~~10 net 20~~ acres (~~15 gross acres~~), at approximately ~~2.52.1~~ dwelling units per gross acre for a total of ~~3842~~ units. It is intended that these units provide housing and recreational facilities within close proximity to the center.

The Country Estates represent the largest number of residential lots. Generally, these range in size from a minimum of one acre to 10-12 acres or larger depending on underlying topography. In some circumstances lot sizes can be reduced to one-half acre. In those areas where a less than I-acre lot size is proposed, it must be shown by the applicant that all of the following criteria are met:

- The application results in the implementation of a regional habitat plan or creation of a wildlife corridor.
- Reduced grading impacts results.
- A separate major use permit/Planned Development Permit is obtained.
- The overall community character of the Specific Plan is not being modified.
- Consideration of adjoining lot sizes, buffering and housing type is taken into account.

Applications for a reduction in lot size of less than one acre shall be restricted to 50% of those eligible lots shown on the COUNTRY ESTATE - LOT SIZE exhibit (Figure 13). The Country Estates are planned on 740 -acres, with ~~642~~ 639 lots dispersed throughout the community.

The Planned Developments represent the third housing type within Rancho Cielo. These are planned adjacent to Del Dios Highway on the east side of the planning area, on one of the southernmost ridges approximately two-thirds of a mile south of the Village Center and on the easterly most subdivision (T.M. 5093). A total of 36 net acres (158 gross acres) with 38 dwelling units is set aside for planned developments. Separate major use permit applications will be filed prior to development of these sites.

LAND USE SUMMARY

LAND USE	SPA		ESTATE		TOTAL	
	NET ACRES	%	NET ACRES	%	NET ACRES	%
RESIDENTIAL						
Village Estates	1020	4.8	--	--	1020	4.8
Country Estates	637	26.0	103	46.4	740	27.7
Planned Development	123	5.0	--	--	123	4.6
Subtotal:	770 <u>790</u>	31.8 <u>31.4</u>	103	46.4	873 <u>893</u>	32.7 <u>33.1</u>
NEIGHBORHOOD COMMERCIAL						
	--	--	28	12.6	28	1.1
PUBLIC FACILITIES						
Village Center	5	.2	—	—	5	.2
Water Rec. Facility	—	—	2	.9	2	.1
Reclaimed Water Res.	13	.5	—	—	13	.5
Potable Water Res.	7	.3	--	--	7	.2
Subtotal:	25 <u>7</u>	1.0 <u>.3</u>	2	.9	27 <u>7</u>	1.0 <u>.2</u>
CIRCULATION						
	77	3.1	20	9.0	97	3.6
OPEN SPACE/ RECREATION						
S-80 Use Regulation	713	29.1	6	2.7	719	27.0
Open Space Easements	855	35.0	63	28.4	918	34.4
Community Recreation	9	.4	--	--	9	.3
Subtotal:	1577	64.5	69	31.1	1646	61.7
TOTALS	2449	100.0	222	100.0	2671	100.0

B. Commercial

The Neighborhood Commercial Center is located at the intersection of Calle Ambiente and Del Dios Highway at the entrance to the project. The Commercial Center is located to serve the residents of Rancho Cielo as well as the needs of area-wide residents and communities. This Center would be occupied by retail commercial establishments such as a gas station, market, pharmacy and nursery. A contract postal station with post office boxes to serve the Rancho Cielo residents will be located here. In order to provide required fire service and improved response time to the Rancho Cielo and adjoining developments, a Fire Station will also be located within the Neighborhood Commercial Center. Leasable office space would also be available. Due to the center's location adjacent to Del Dios Highway, a County Scenic roadway, a site plan will be required prior to development.

For more detailed analysis of the commercial center and the need for commercial uses in this area, please refer to the Commercial Feasibility Analysis located in this report.



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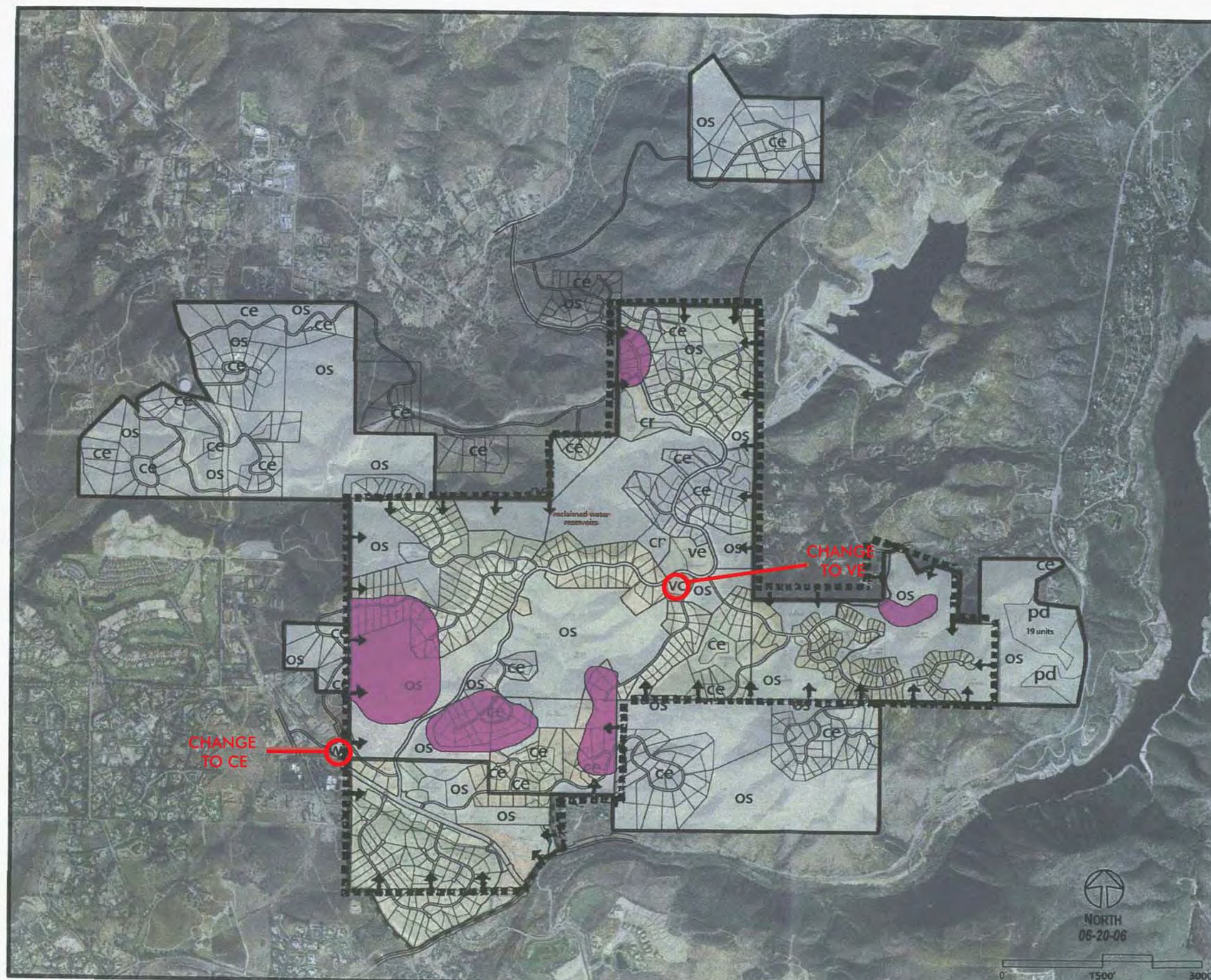
RANCHO SANTA FE

Country Estate Lot Size

➡ Areas where 50% of Country Estates lots are eligible for less than 1 acre lot size

Not eligible for less than 1 acre lot size due to visual impacts

..... open space within residential lot



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Figure 13

C. Public Facilities Civic Uses

The main commercial area has been relocated from the previously named Village Center to the Neighborhood Commercial. The need for commercial uses in the middle of the project has been withdrawn as the Neighborhood Commercial area has been developed in a preferred location. Consequently, many of the public facilities and civic uses have also been relocated to the Neighborhood Commercial area, which is immediately adjacent to Del Dios Highway. A fire station and heliport have been developed in the Neighborhood Commercial area and a site plan has been recently approved for the main commercial center. This commercial center will include uses such as a restaurant, shops, and a market.

1. Services and Facilities for SPA 05-004

Fire Service

The proposed development areas are located within the adopted, current Sphere of Influence of the Rancho Santa Fe Fire Protection District (RSFFPD) and will require annexation to the district for this service. A fire station was constructed at the corner of Del Dios Highway and Calle Ambiente. Response time from the fire station to each of the proposed housing areas is estimated at between 2 and 5 minutes.

Water Treatment and Distribution Facilities

The proposed development areas are located within the boundaries of the Olivenhain Municipal Water District (OMWD) and will be served by OMWD water facilities. Service Availability Letters have been obtained from OMWD for all three tentative map sites stating that the district is capable of providing water service for the project site, once construction of the facilities is completed.

Sewer Service

The SPA 05-004 project area is located within the OMWD. A Project Facility Availability Form has been obtained from the district stating that they are capable of serving the project site. The SPA 05-004 site is also completely within the OMWD, since the annexation has been completed pursuant to the previous LAFCO approval. Project Availability Forms have also been submitted for SPA 05-004 from the district stating that they are capable of serving the project site.

A sewer pump station (PS#1) will be constructed as shown on Lot 9 of TM5010RPL4, within the subject property. OMWD does not require the station to be located within its own legal lot, and the station will be operated and maintained by the HOA. The pump station will be constructed by Rancho Cielo Estates, pursuant to secured improvement plans for the recorded Map 12904 (TM4229-3) and agreement between property owners recorded as Document #1991-0542333. Sewage will be pumped to the 4-S treatment plant southeast of Lake Hodges (San Dieguito River), hence avoiding any potential impacts to Escondido Creek basin quality. The pump station is one in a series of four along Camino Sin Puente and will complete wastewater collection

facilities for this area of the RCSP.

D. Circulation

The external circulation system bordering Rancho Cielo is public. There are two major points at which the Rancho Cielo Development will access these roads. Del Dios Highway, which borders the property on the south and east, is the main thoroughfare which serves the property via Calle Ambiente. Elfin Forest/Harmony Grove Roads will serve as secondary access from the north. A third access, Mt. Israel Road will be used for emergencies only, with the exception of adjacent property owners other than Rancho Cielo Development Company that may have existing legal access as of December 18, 1996, including access to any gates which will be constructed across said easement.

The internal circulation system of Rancho Cielo is private. Via Ambiente will be improved as a 32 to 36-foot wide rural road and will meander a passive park and/or community/recreation facility to serve the residents of Rancho Cielo. The elimination of the Equestrian Center reduces the need for trails to support the Equestrian Center. However, the owners/developers of Rancho Cielo will coordinate with OMWD and surrounding property owners to place a recognized equestrian trail through the development in generally an east-west direction. Local roads (24 to 28-foot wide) will feed off of Via Ambiente to provide access to residential areas. In all cases, the roads are designed to minimize grading by following the existing topographic constraints.

E. Open Space/Recreation

There are two types of open space areas, open space easements and S-80 use regulation open space areas, and a community recreation area. The open space easements are generally located on portions of residential lots and represent 918 acres or 34.4 percent of the Specific Plan. The S-80 Use Regulation areas include the Escondido Creek and a major canyon and its tributaries and represent 719 acres or 26.9 percent of the Specific Plan. The 9-acre Community Recreation area will allow for the development of organizations to augment the existing trail system in the San Dieguito Community Planning Area by constructing a trail connecting the Escondido Creek trail with the trail system constructed by OMWD for the Olivenhain Water Storage Project area. This route replaces the trail on the San Dieguito Community Plan Trails Map connecting Elfin Forest with the Mt. Israel area.

III. ORDER OF IMPLEMENTATION

As stated earlier, the Rancho Cielo Specific Plan is the result of a cooperative effort by multiple ownerships (Figure 14). Although planned as one entity, implementation will occur by ownership, primarily through the tentative map process. The phasing schedule reflects this as well as the specific criteria or variables necessary for development. In that sense, the phasing plan is based on specific performance standards designed to promote an orderly development of Rancho Cielo. Those performance standards are divided into Community Phasing Standards and Ownership Phasing Standards.

The Rancho Cielo Community Phasing Standards require that development shall:

1. Provide for the timely provision of facilities and services to accommodate the anticipated development.
2. Assure that the major community circulation network is constructed prior to the development of individual neighborhoods.
3. Insure preservation of contiguous regionally significant open space corridors concurrent with the development of each phase.
4. Provide financing mechanisms that will assure the fiscal viability of the community without the creation of a financial hardship on the public agency providing the service.

To implement the above, the Ownership Phasing Standards were developed to serve as a guide for the development of individual portions of the Specific Plan (Figure 15). These standards are as follows:

Phase I shall be:

1. Adjacent to existing developed areas; or
2. Adjacent to existing access to publicly dedicated roads or roads offered for dedication; or
3. Required for inclusion due to the provision of public facilities' requirements in the Specific Plan; and
4. Required to establish the backbone circulation system in Rancho Cielo; and
5. Supported by existing or planned public facilities/services.

Phase II shall be:

1. Adjacent to Phase I; and
2. Areas not adjacent to nor in close proximity to publicly dedicated roads or roads offered for dedication; and
3. Areas not necessary to accommodate proposed public/semi-public facilities.

Phase I represents the largest area and includes all public/community facilities. It includes 1635 acres and 476 residential units. The Village Estates are included within this phase as are the Community Recreation area, the fire station site and the heliport site.

Phase II includes 1036 acres and 242 residential units. This phase will represent a logical extension of the Phase I road network. In principal, Phase II lots may develop prior to Phase I if the public services/facilities are available and the subject development is capable of constructing the necessary improvements to achieve consistency with the Rancho Cielo Community Phasing Standards. Phase II tentative maps may be processed and approved but shall not record until Phase I infrastructure is under construction.



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Property Ownership

- 1 rancho cielo
1110 acres
- 2 rancho cielo estates
331 acres
- 3 rancho cielo east
163 acres
- 4 tm 4226
32 acres
- 5 rancho santa fe views
181 acres
- 6 choumas et. al.
142 acres
- 7 tabing
45 acres
- 8 white
CIELO DEL NORTE
- 9 white (in trust)
CIELO DEL NORTE
- 10a sherman & sons, LLC.
80.5 acres
- 10b mcgrath
73 acres
- 11 san elijo vista
100 acres
- 12 hewitt et. al.
81 acres
- 13 botzner / allen
48 acres
- 14 pacini / baker
45 acres
- 15 white / peterson
43 acres

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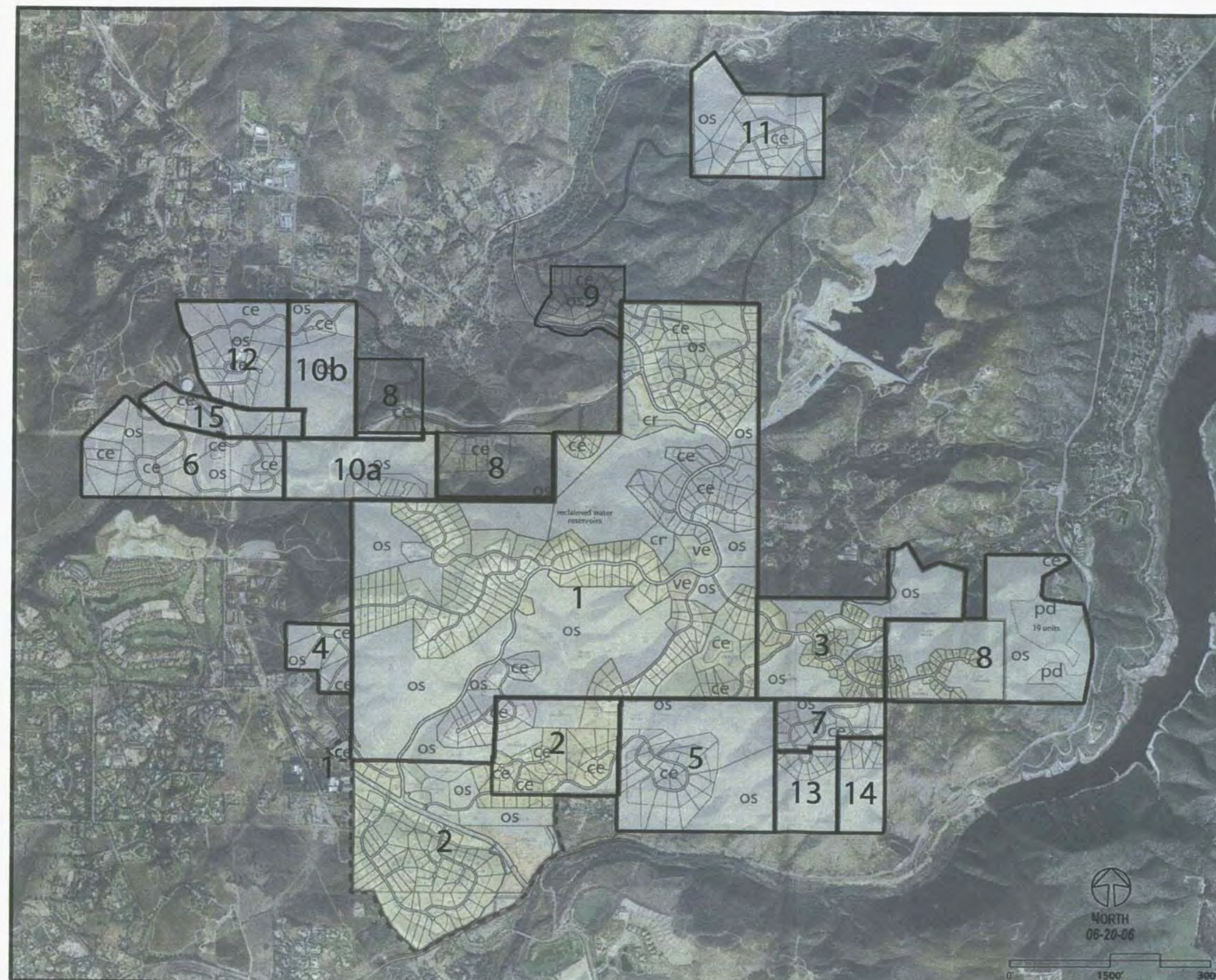
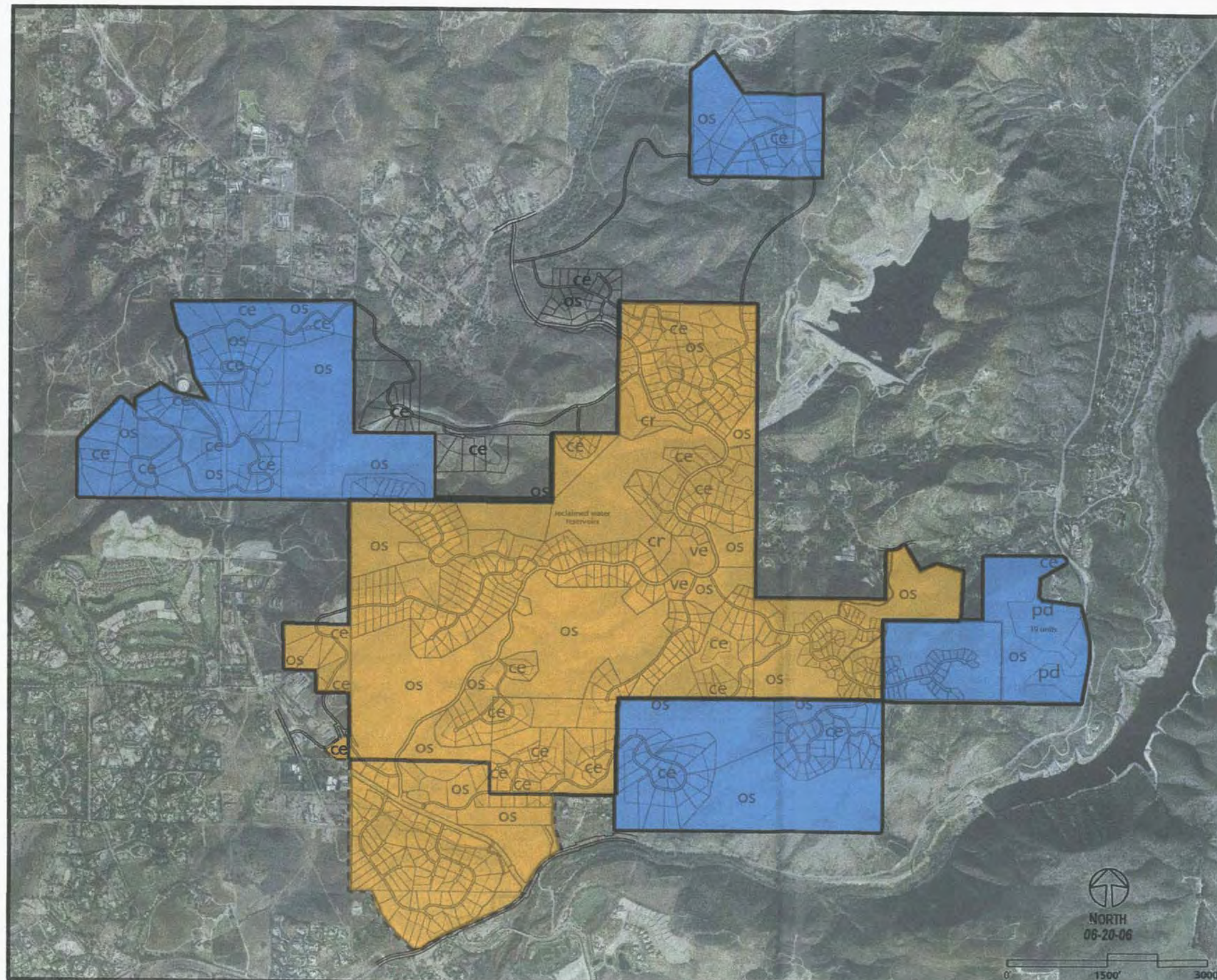


Figure 14



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Phasing



phase I



phase II



NORTH
06-20-06

0' 1500' 3000'

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Figure 15

IMPLEMENTATION

The following is a brief description of discretionary and ministerial permits that may be required to implement Rancho Cielo:

A. Tentative Subdivision Map

Four tentative maps are included within the first Phase and were approved concurrently with the Specific Plan. The tentative map process is used as the main tool to implement the Specific Plan. The is seventh Specific Plan Amendment will utilize three- two tentative maps to subdivide one parcel into three single family dwelling lots and to subdivide two other parcels for condominium purposes.

B Zone Reclassification

A zone reclassification was approved concurrently with the Specific Plan. New zone reclassifications will be- were submitted to bring zoning into conformance with the various density changes shown on the revised Specific Plan (Figure 12). Specific Plan Amendment SPA 05-004 proposed s two rezones. The first rezone will changed a commercial zone to a residential zone to all condominiums as the primary use. The second rezone will changed the sSpecial aArea uUse rRegulations from “P” to “D” to require conformance with the Rancho Cielo Design Guidelines.

C. Major Use Permits

Several major use permits will be submitted. Other permits will be required for the heliport, planned developments, active parks within the Community Recreation areas if proposed, and other community facility sites.

D. Site Plans

If a passive park is proposed within the Community Recreation area, a Site Plan will be required prior to approval of a grading plan and/or building permit. The purpose of this Site Plan is to evaluate any proposed parking, grading, landscaping, signage and lighting to insure compatibility with the surrounding residential area.

A site plan for the neighborhood commercial center was recently approved. Two other site plans were submitted as a part of the is seventh Specific Plan Amendment. These site plans are for the two Village Estate areas, which are being proposed as condominiums. These site plans are required pursuant to the “D” Designator to prove compliance to the Rancho Cielo Design Guidelines. Other locations may be subject to site plans at the discretion of the Planning Commission or Board of Supervisors.

E. Local Agency Formation Commission (LAFCO)

The LAFCO approved the formation of the Rancho Cielo Sanitation District and

annexation to the Rancho Santa Fe Fire Protection District (RSFFPD). The Rancho Cielo Sanitation District was taken over by the Olivenhain Municipal Water District (OMWD) which will provide service to Rancho Cielo. RCSP areas not currently served by OMWD must be located within the OMWD Sphere of Influence and will be required to annex into the District for service. Similarly, eligible areas within the RSFFPD Sphere of Influence will be required to annex into the District for fire service.

F. Vacation Permit

A vacation permit is unnecessary, but the existing open space boundaries will change on TM5440 and TM5441 when the final maps are recorded. Tentative Maps TM5440 and TM5441 in conjunction with Specific Plan Amendment SPA 05-004 will adjust the boundaries of both open spaces to create a net gain of 0.75 acres to be preserved in open space.

G. Grading Permit

Individual grading permits will be considered primarily during the tentative map and building permits processes. Other grading permits for the major uses within Rancho Cielo will also be considered in compliance with County requirements and procedures.

H. Regional Water Quality Control Board (RWQCB)

The RWQCB will be one of the agencies responsible for reviewing the water reclamation facility. Both the Environmental Impact Report and the Water Reclamation Report for Rancho Cielo will be reviewed by this Board.

I. Boundary Adjustments

Due to topographical features, residential lots may extend over existing property lines. Boundary adjustments will be processed as a condition of the individual tentative subdivision maps.



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Proposed Zoning

R-R-1		R-R-1 (1)	
USE REGULATIONS		USE REGULATIONS	
NEIGHBORHOOD REGS		NEIGHBORHOOD REGS	
Density	1	Density	1
Lot Size	1 Ac	Lot Size	1 Ac
Building Type	C	Building Type	C
Maximum Floor Area	--	Maximum Floor Area	--
Floor Area Ratio	--	Floor Area Ratio	--
Height	G	Height	G
Lot Coverage	--	Lot Coverage	--
Setback	G	Setback	G
Open Space	--	Open Space	--
SPECIAL AREA REGULATIONS		SPECIAL AREA REGULATIONS	

R-R-35		R-R-25	
USE REGULATIONS		USE REGULATIONS	
NEIGHBORHOOD REGS		NEIGHBORHOOD REGS	
Density	0.35	Density	0.25
Lot Size	--	Lot Size	--
Building Type	L	Building Type	L
Maximum Floor Area	--	Maximum Floor Area	--
Floor Area Ratio	--	Floor Area Ratio	--
Height	P	Height	P
Lot Coverage	60%	Lot Coverage	60%
Setback	V	Setback	V
Open Space	A	Open Space	A
SPECIAL AREA REGULATIONS		SPECIAL AREA REGULATIONS	

R-V-3		S88	
USE REGULATIONS		USE REGULATIONS	
NEIGHBORHOOD REGS		NEIGHBORHOOD REGS	
Density	3	Density	--
Lot Size	--	Lot Size	--
Building Type	L	Building Type	--
Maximum Floor Area	--	Maximum Floor Area	--
Floor Area Ratio	--	Floor Area Ratio	--
Height	P-H	Height	--
Lot Coverage	60%	Lot Coverage	--
Setback	V	Setback	--
Open Space	A	Open Space	--
SPECIAL AREA REGULATIONS		SPECIAL AREA REGULATIONS	

C-36		C-36(S)	
USE REGULATIONS		USE REGULATIONS	
NEIGHBORHOOD REGS		NEIGHBORHOOD REGS	
Density	Q	Density	Q
Lot Size	29	Lot Size	29
Building Type	Y	Building Type	T
Maximum Floor Area	--	Maximum Floor Area	--
Floor Area Ratio	--	Floor Area Ratio	--
Height	G	Height	G
Lot Coverage	--	Lot Coverage	--
Setback	Q	Setback	Q
Open Space	A	Open Space	A
SPECIAL AREA REGULATIONS		SPECIAL AREA REGULATIONS	

S-80		S-80(F)	
USE REGULATIONS		USE REGULATIONS	
NEIGHBORHOOD REGS		NEIGHBORHOOD REGS	
Density	0.125	Density	0.125
Lot Size	8 Ac	Lot Size	8 Ac
Building Type	C	Building Type	C
Maximum Floor Area	--	Maximum Floor Area	--
Floor Area Ratio	--	Floor Area Ratio	--
Height	G	Height	G
Lot Coverage	--	Lot Coverage	--
Setback	C	Setback	C
Open Space	--	Open Space	--
SPECIAL AREA REGULATIONS		SPECIAL AREA REGULATIONS	

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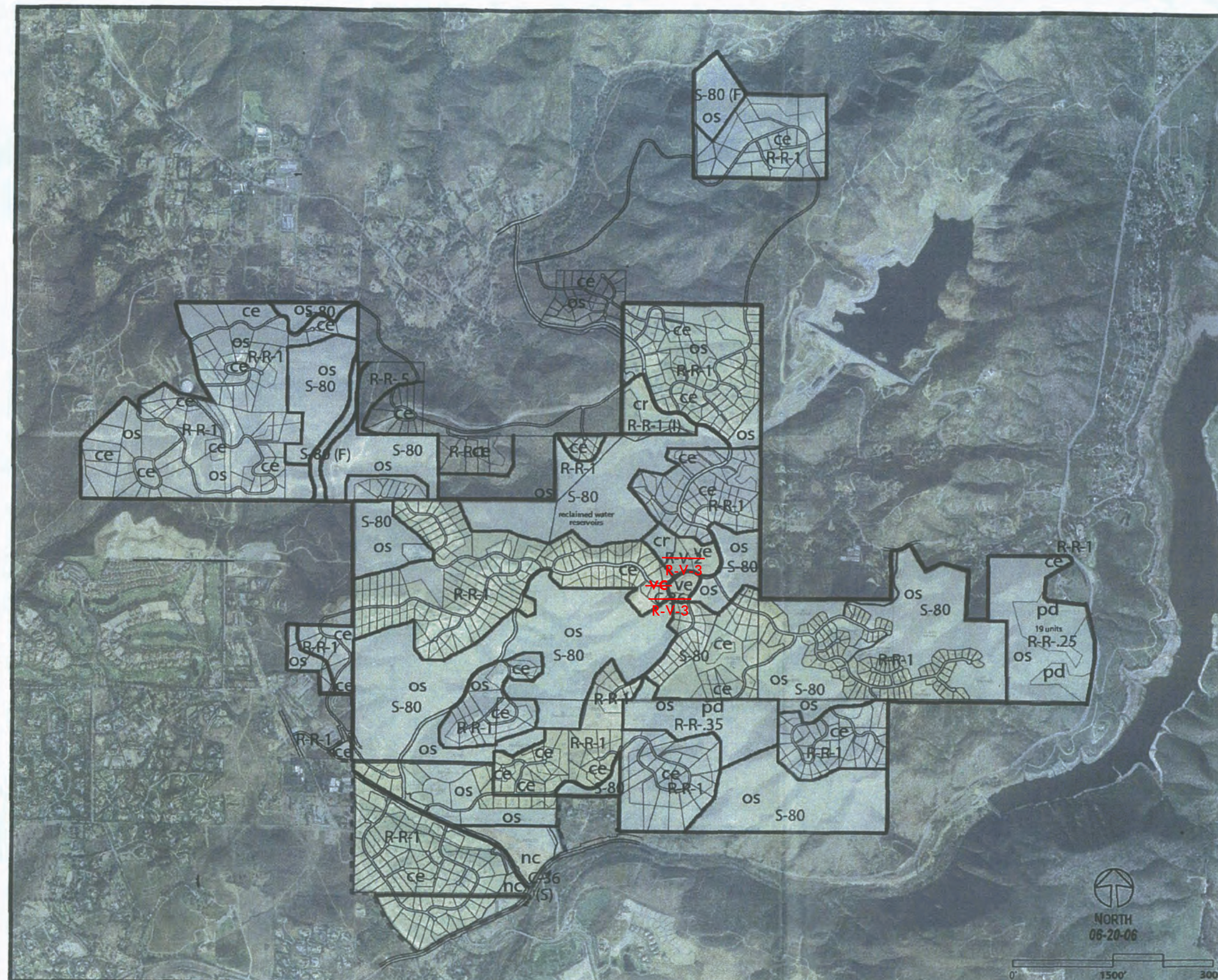


Figure 16

CONFORMANCE WITH SAN DIEGO COUNTY GENERAL PLAN AND SAN DIEGUITO COMMUNITY PLAN

This section will discuss the relationship of the San Diego County General Plan, the San Dieguito Community Plan and the Rancho Cielo Specific Plan. The Elements of the General Plan which will be analyzed include:

- I. Open Space
- II. Regional Land Use
- III. Circulation
- IV. Recreation
- V. Seismic Safety
- VI. Scenic Highway
- VII. Noise
- VIII. Housing
- IX. Conservation
- X. Energy

The San Dieguito Community Plan and its elements will be discussed separately since it further details and implements the above Regional Elements.

I. OPEN SPACE ELEMENT

The goals of the Open Space Element are stated as follows:

- I. To promote the health and safety of San Diego County residents and visitors by regulating the development of lands.
- II. To conserve scarce natural resources and lands needed for vital natural processes and the managed production of resources.
- III. To encourage and preserve those open space uses that distinguish and separate communities.

These goals are discussed in detail in the six sections of the Open Space Element. The sections which apply to Rancho Cielo are: (A) Water Bodies; (B) Floodplains; (C) Agricultural Preserves and Open Space Elements; and (D) Open Space Design of Private Lands.

A. Water Bodies

Goal I: Health and Safety: Control development to assure minimal adverse polluting effect on reservoirs, lakes, rivers, streams and ground water supplies.

The Rancho Cielo Specific Plan preserves the portions of the Escondido Creek and its tributaries running within its boundaries. Open Space Easements will be over all of those lands that are environmentally significant. Retention of the native vegetation will significantly reduce or eliminate any erosion potential and protect the integrity of the creek on-site and downstream.

B. Floodplains

Goal I:

1. Health and Safety: Protect life and property by regulating use in areas subject to flooding.
2. Reduce the need for the construction of major flood control improvements.
3. Control development to assure a minimal adverse polluting effect on reservoirs, lakes, streams, rivers and ground water supplies.

Goal II:

1. Conservation of Resources and Natural Processes: Encourage the conservation of the habitats of rare or unique plants and wildlife.
2. Encourage the conservation of vegetation and trees needed to prevent erosion, siltation, flood and drought, and to protect water quality.
3. Encourage the use of streams as local open space.

These goals are similar to subsection (B) entitled Water Bodies. The Escondido Creek and its tributaries will be preserved such that no uses will be proposed in areas subject to flooding. There will be no need for any major flood control improvements and all significant environmental resources shall be preserved.

The retention of the creek should also be the start of a major open space system with its terminus at the San Elijo Lagoon. Riding and hiking trails have been planned in a discreet manner to protect this habitat while encouraging passive enjoyment. The Rancho Cielo Specific Plan is the first link in that system.

C. Agricultural Preserves and Open Space Easements

There are four objectives of Goal II, Conservation of Resources and Natural Processes, which apply to Rancho Cielo.

1. Encourage the conservation of vegetation and trees needed to prevent erosion, siltation, flood and drought.
2. Encourage the conservation of the habitats of rare or unique plants and wildlife.
3. Encourage the use of minor natural watercourses as local open spaces.
4. Encourage the preservation of significant natural features including. . . canyons, bluffs, mountain peaks and major rock outcroppings.

The Rancho Cielo Specific Plan proposes preservation of the significant environmental features of the site. This will be accomplished by granting open space easements over those areas determined to be significant due to wildlife, biological or geological reasons. The major easement will be placed over that portion of Escondido Creek and its tributary which traverse the site. This will serve to protect habitats of rare and endangered plants as well as significant features such as steep slopes and major rock outcroppings.

To supplement this, wildlife corridors from the Escondido Creek to the San Dieguito River will be preserved through easements over lots. Other minor canyons, peaks and rock outcrop pings are an integral part of the open space program and are also preserved through easements. The significance of all these areas is described in more detail in the Environmental Impact Report.

D. Open Space Design of Private Lands

This section relates to the Specific Plan process and the preservation of open space lands to achieve the varied goals stated above. As noted earlier, the Specific Plan designates open space areas needed to achieve an environmentally sensitive product. Most of the objectives of this section have been discussed in previous sections. Those which have not follow.

Objective 11:

"Encourage recreational planning as a part of all major residential developments."

The Rancho Cielo Specific Plan proposes a 9-acre Community Recreation area to include community park or recreation facility. This will allow the development of a passive park and/or community/recreation facility. Other recreational features include private recreational facilities as part of the Village Estates, and a bicycle path along Del Dios Highway.

Objective 12:

"Encourage the acquisition of historic sites including unique archaeological sites and their immediate environments by public agencies or private organizations interested in our historical and cultural heritage."

The Rancho Cielo Specific Plan has identified one major archaeological site and a number of smaller sites. The one major site located at the southwest portion of the planning area is a major quarrying site. The Specific Plan proposes mitigation of all of the minor archeological sites. The major site will be preserved as detailed in the Environmental Impact Report.

II. REGIONAL LAND USE ELEMENT

The County Regional Land Use Element implements the goals and objectives of the Regional Growth Management Plan. That plan was approved in concept by the Board of Supervisors on August 16, 1978. Its major emphasis is well-stated in the four goals of the Land Use Element:

- 1.1 Urban Growth be directed to areas within or adjacent to existing urban areas, and the rural setting and lifestyle of the remaining areas of the County be retained.
- 1.2 Growth be phased with facilities.
- 1.3 Growth be managed in order to provide for affordable housing and balanced communities throughout the unincorporated area.
- 1.4 Urban portions of the unincorporated area be encouraged to either annex to an adjacent city or incorporate and that urban levels of service be provided in an efficient manner and be financed using equitable financing mechanisms.

The Rancho Cielo Specific Plan is affected by goals 1.1, 1.2 and 1.3. Since this is not an urban development, goal 1.4 will not be discussed.

A. Goal 1.1

The portion of this goal affecting the Rancho Cielo Specific Plan is the "rural setting and lifestyle of the remaining areas of the County be retained. II The San Diego County General Plan designates this area a nonurban estate development area. That category allows lots ranging in size from 2 to 20 acres. Smaller lot sizes are permitted if:

1. The project does not require urban levels of service.
2. At least 40 percent of the project area is in permanent open space.

The Rancho Cielo Specific Plan proposes an average density of 1 dwelling unit per 3.65 acres. Clustering is proposed down to one-acre lots with lots ranging from 1 to 4 acres and larger. The development proposes to utilize private roads for access, rural street lighting and hillside grading standards where appropriate. Open space easements will be placed on the remaining portions of the site to ensure that the number of units will never exceed that nonurban density. Approximately 61.7 percent of the site will remain open space.

B. Goal 1.2

The Rancho Cielo Specific Plan proposes to phase all facilities with demand for those services. Specifically, fire, security, water and sewer facilities will be provided concurrent with need. Neighborhood and community commercial centers will also be provided to lessen the demand for additional automobile trips out of the development. Those centers are discussed more fully in the Land Use Plan section and as a part of the Commercial Feasibility Study. A more detailed discussion of the public services issue is discussed in the Environmental Impact Report.

C. Goal 1.3

The Rancho Cielo Specific Plan proposes a variety of housing densities to increase choice. There will be three separate clustered residential and planned development areas within the plan boundaries. The first, Village Estates, proposes a maximum of ~~38 clustered~~ 42 units on approximately 1520 acres (~~2.5-2.1~~ DU/acre) to create vitality around the middle of the project.

Two planned developments at significantly lower densities will be provided, one south of the Village Estates (19 units on 58 acres or 0.33 DU/acre) and the other on the east side of the plan just west of Del Dios Highway (19 units on 100 acres or 0.19 DU/acre).

In addition to the major goals stated above, the Regional Land Use Element discusses three other goals pertinent to the Rancho Cielo Specific Plan: Land Use, Environmental and Capital Facilities.

D. Land Use Goals

There are three Land Use Goals which apply to Rancho Cielo:

- 2.1 Promote the wise use of the County's land resources, preserving options for future uses.
- 2.2 Retain the rural character of nonurban lands.
- 2.6 Insure preservation of contiguous regionally significant open space corridors.

- 1. Goal 2.1 is similar to goals stated in the Open Space Element. Please refer to that element for discussion.
- 2. Goal 2.2 is similar to Goal 1.1 of the Regional Land Use Element. Please refer to the preceding page for discussion
- 3. To implement Goal 2.6, Rancho Cielo proposes the preservation of Escondido Creek and the canyon which traverses the site from east to west. Also, minor corridors connecting the creek to the San Dieguito river will be preserved to facilitate wildlife passage.

E. Environmental Goals

The Environmental Goals which apply to Rancho Cielo are:

- 3.1 Protect lands needed for preservation of natural and cultural resources; managed production of resources; and recreational, educational and scientific activities.
- 3.2 Promote the conservation of water and energy resources.

1. Goal 3.1 is similar to goals stated in the Open Space Element. Please refer to that section for discussion.

2. To implement Goal 3.2, Rancho Cielo proposes a water reclamation facility which will produce about 265,600 gallons of reusable water for landscape irrigation. The development of homesites has taken into consideration solar access. A detailed solar feasibility study is contained in this report. Please refer to that section for additional details. The County (The Rancho Cielo Sanitation District) was once going to be the sewer provider for this project and an on-site treatment facility and reclaimed water reservoirs were originally proposed to serve the project. When other major projects in the San Dieguito Valley were approved by the County, OMWD agreed to supply both water and sewer services for these projects and the Rancho Cielo project. LAFCO approved the annexation of all these projects into OMWD's sewer service district and abandoned the Rancho Cielo Sanitation District. OMWD's treatment plant, that also serves Rancho Cielo, is located on the 4S Ranch site. Rancho Cielo generates reclaimed water, but it is utilized in other areas in the San Dieguito Valley and no reclaimed water for this system is utilized in the Ranch Cielo project. Therefore, a water reclamation facility and the reclaimed water reservoirs on the Rancho Cielo site are no longer required or necessary.:-

F. Capital Facilities Goals

The Capital Facilities goals which apply to Rancho Cielo are:

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- 4.1 Assure efficient, economical and timely provision of facilities and services for water, sewer, fire protection, schools and roads to accommodate the anticipated development.
- 4.2 Assure that facilities and services provided by all agencies are coordinated in their timing, location and level of service.

Both of these goals will be implemented through the Specific Plan and tentative subdivision map processes. The Environmental Impact Report contains a detailed discussion of public services and their availability. The phasing of Rancho Cielo will also require that facilities or services be available prior to or concurrent with need. This will be assured through close cooperation with all districts concerned with this project.

III. CIRCULATION ELEMENT

The Circulation Element of the County General Plan depicts corridors for public mobility and access which are planned to meet the needs of the existing and anticipated population of San Diego County. It is the intent of the Circulation Element to preserve a corridor uninhabited by any permanent structure for future road right-of-way for each and every road shown on the Circulation Element map.

Although there is much debate on the circulation needs *for* the San Dieguito area, this Specific Plan will not be specifically impacted by future decisions on roads adjacent to this property.

A. Road Network

1. Del Dios Highway

This road generally abuts the project on the south and southeast. Del Dios Highway is recently a two-lane, 40-foot wide paved road within 100 feet of right-of-way. Due to topographic limitations, it would be difficult to widen at this time. The 1983 Circulation Element designated Del Dios Highway as an 84-foot collector road. The Rancho Cielo Specific Plan supports the 1983 Circulation Element as it relates to this road.

2. Harmony Grove Road

This road abuts the project on the northeast. Current right-of-way is 101 feet with improvements ranging from 16 to 24 feet of paving. The 1983 Circulation Element designates Harmony Grove Road as an 84' collector road. Rancho Cielo proposes no major improvements along Harmony Grove. Additional dedication and improvement requirements will be determined by the County Department of Transportation.

3. Mt. Israel Road

This road is currently improved to between 24 and 32 feet of pavement along a 60-foot right-of-way between Del Dios highway and the eastern edge of the project site (TM 4225). The

1983 Circulation Element designates this road as a 60-foot light collector. Rancho Cielo proposes to use Mt. Israel Road for emergency purposes and access for two adjacent lots. No improvements are proposed for this road.

B. Bicycle Network

In addition to the road network, the Circulation Element includes a comprehensive system of bicycle routes. The general goal of this supplement is to:

"Provide for the safe and convenient use of bicycles throughout San Diego County for recreation and as a viable alternative to the automobile as a form of local transportation."

More specific goals are as follows:

- Goal III: Encourage the development of bicycle routes throughout the County
- Goal II: Provide bikeway routes with uninterrupted connection affording safe and convenient community-wide accessibility while preserving the natural environment to the greatest extent possible.
- Goal III: Provide the related facilities and services necessary to allow bicycle travel to assume a significant role as a form of local transportation and recreation.

Dedication of additional right-of-way along Del Dios Highway to accommodate bicyclists in conformance with the Bicycle Subelement will be accomplished when individual tentative maps are filed with the County.

IV. RECREATION ELEMENT

The Recreation Element provides policies for the provision of recreational facilities in the unincorporated area of San Diego County. This element discusses local and regional park needs, riding and hiking trails and off-road vehicle locations. One important component of the adopted San Dieguito Community Plan is a map of hiking and riding trails. The adopted San Dieguito Plan contains trail alignments within the SPA boundary that need to be considered when discretionary actions are proposed. Any new major subdivisions that impact adopted trail alignments are required to dedicate and improve riding and hiking trails pursuant to Chapter 3 of the County General Plan Recreation Element. The Rancho Cielo development proposes to pay in-lieu fees in conformance with the Local Park Dedication Ordinance, except in those areas where private recreational facilities are proposed such as the Village Center, individual subdivided areas shown on the Plan of Land Usage, and planned developments. There are no regional parks that impact Rancho Cielo; nor are there any off-road vehicle locations.

The goals and objectives of Chapter 3, "Riding and Hiking Trails Plan and Program," which relate to Rancho Cielo are:

Goal: "Establish and protect an enjoyable, efficient, and safe network of public riding and hiking trails. Objectives:

1. Interconnect Parks and Recreation Areas and trails planned by the County and other governmental agencies.
2. Provide a variety of trails experiences by locating trails through varied terrain, scenery and points of interest.
3. Develop trails which may be safely used by hikers and riders of all ages and skills.
4. Blend facilities to support trail use, such as group camps and staging areas within existing and future parks.

The Rancho Cielo Specific Plan implements the above goals and objective through the following: The elimination of the Equestrian Center reduces the need for trails to support the Equestrian Center. However, the owners/developers of Rancho Cielo will coordinate with OMWD, surrounding property owners and recognized equestrian organizations to augment the existing trail system in the San Dieguito Community Planning Area by constructing a trail connecting the Escondido Creek trail with the trail system constructed for the Olivenhain Water Storage Project.

A. The trail would be located in a variety of topographic and scenic areas, including the Escondido Creek. This trail allows a variety of experiences ranging from isolation in the creek to the trail system constructed for the Olivenhain Water Storage Project.

B. The trail will be clearly marked and will conform to County and State standards for design and safety. The trail will be improved in a manner consistent with environmental concerns.

C. This trail will connect with and support the riding and hiking trails and staging area constructed for the Olivenhain Water Storage Project.

V. SEISMIC SAFETY ELEMENT

The stated goal of the Seismic Safety Element is

. . . to minimize the loss of life and destruction of property in San Diego County by making planning recommendations giving consideration to seismic and geologic occurrences and their long-range impact on the community.

The Rancho Cielo Specific Plan has two inferred faults running through it and for this reason a detailed geotechnical study was conducted as part of the Environmental Impact Report. Please refer to the EIR for a detailed discussion.

The objective of this Element which relates to Rancho Cielo is:

Objective 1:

If a project is proposed in an area classified as seismically and geologically hazardous, the proposal should establish that:

1. The unfavorable conditions do not exist in the specific area in question; and/or

2. The development is consistent with the policies of the County of San Diego as set forth in this Element.

As stated earlier under the Land Use Element section, the approach utilized in the planning of Rancho Cielo was to first identify the environmental constraints on-site and secondly to develop the land use plan around those constraints. Geologic hazards are one of the major constraints considered in that study. Since geology is such a significant issue on this site, none of the planning for homesites and roads was finalized until reviewed by a professional geologist. The Rancho Cielo Land Use Plan as submitted reflects that review. The Environmental Impact Report has analyzed this constraint in detail. In certain cases, additional geologic study is recommended especially in those areas where intensive uses are planned, but the details of those uses are not yet known (i.e., specific design of commercial center, reservoir sites, , etc.).

VI. SCENIC HIGHWAY ELEMENT

The purpose of this Element is,

. . . to establish a scenic Highway Program to protect and enhance the County's scenic, historic and recreational resources within a network of scenic highway corridors.

This goal, along with the following two objectives directly impacts Rancho Cielo.

Objective 2:

Protect and enhance scenic resources within designated scenic highway corridors.

Objective 4:

Designate and maintain rural scenic highways to provide access to scenic and recreational resources.

Del Dios Highway is designated a Scenic Highway. The main reason for this designation is to protect views of the San Dieguito River and Lake Hodges and to protect the steep slopes on Rancho Cielo from adverse grading impacts.

The Scenic Highway Element contains corridor protection measures to be considered in preparing a specific plan. As those measures relate to Rancho Cielo, they are:

1. Land Use controls, including building heights and setbacks and screening of offensive uses.
2. Subdivision regulations relating to cut and fill slopes, tree preservation, limited access onto scenic highways, utility undergrounding and roadway design.
3. Grading standards to include vegetative cover and screening, erosion control and limited movement of natural terrain.
4. Development design resulting in an attractive appearance and harmonious relationship to the scenic setting.

The Rancho Cielo Specific Plan proposes that all of the steep land adjacent to Del Dios Highway in the vicinity of the Lake Hodges dam be placed in an open space easement. This area is not only significant for visual reasons but also contains major wildlife corridors, significant rare and endangered plant life and the site of a golden eagle's nest. For all of these reasons, this area will be preserved.

For those areas where passersby will have visual contact to Del Dios Highway, strict development controls are proposed. Those include:

- A. Homesites are proposed in areas not easily viewed from the highway.
- B. A site plan was required for the neighborhood commercial center to prevent adverse grading, regulate revegetation of slopes, and encourage a commercial facility that blends well into the natural terrain.
- C. Conventional padding of lots is discouraged.
- D. Graded areas shall be replanted with native vegetation for aesthetic reasons and to prevent erosion.
- E. Any grading for roads shall be kept to a minimum and where feasible, bridges shall be utilized to minimize disturbance of the natural terrain.
- F. All utilities shall be placed underground.

VII. PUBLIC SAFETY ELEMENT

The purpose of the Public Safety Element is to increase public safety by reducing the effects of various types of hazards. The safety hazards considered in this Element are fire, geology, crime and emergency services. Geologic hazards were discussed under the Seismic Safety Element and will not be discussed here.

A. Fire Protection

- 1. Policy 2: The County will consider site constraints in terms of fire hazards in land use decisions. Within designated areas where population or building densities may be inappropriate due to the hazards present, measures will be taken to mitigate the risk of life and property loss.
- 2. Policy 4: The County will support the improvement of the delivery of fire protection services through functional cooperation which may lead to a unified countywide fire protection system.

These two policies interrelate and directly impact Rancho Cielo. The Rancho Cielo area is served by a full-time fire protection agency. The majority of the Specific Plan Area has been annexed to the Rancho Santa Fe Fire Protection District. Remaining portions are within the District's Sphere of Influence, but will require annexation to obtain service. A new fire station was constructed in the Neighborhood Commercial area at the intersection of Calle Ambiente and Del Dios Highway.

That not only gives the District excellent response time to homes within Rancho Cielo but also provides fire protection services to the Santa Fe Valley Specific Planning Area.

Also as a measure to reduce fire hazards, the Rancho Cielo Specific Plan proposes to recycle 265,600 gallons of water per day from its wastewater reclamation plant. That water will be used to irrigate community landscaping and fuel breaks behind homesites. The fuel breaks will have a minimum width of 100 feet and will be planted with fire-retardant vegetation.

Rancho Cielo is an area classified as a "Very High Wildland Severity Zone." This is a state classification that indicates the area has a potential for large destructive wildland fires and that special care should be taken when building in these areas.

B. Crime Protection

Policy 2: Encourage crime prevention through the planning process by establishing specific design criteria and standards to be used in the review of land use development.

A major element of the Rancho Cielo Plan is security. Controlled access is proposed on the east, west, and north sides of Rancho Cielo at Mt. Israel Road, Del Dios Highway and Harmony Grove Road, respectively. Each dwelling will be equipped with a security system with a central terminal located and operated through the fire station. This will serve to lessen the need for additional protection from the County Sheriff's Department.

C. Emergency Services

Policy 1: The County will establish and support a comprehensive emergency medical services system which coordinates regional resources to meet or exceed the criteria and standards for such a system.

Although not regional in nature, the Rancho Cielo Specific Plan will have a comprehensive emergency medical system through the Rancho Santa Fe Fire District. A heliport is proposed adjacent to the new fire station for emergency evacuation as well as for fire protection uses. The area is also served by the countywide emergency communications system (911).

VIII. NOISE ELEMENT

The Noise Element exists to establish a coordinated set of policies and noise standards for the reduction of irritation and harmful effects of noise to people within the County of San Diego through effective planning and, if necessary, regulation. A detailed analysis of the noise impacts in this area is contained in the Environmental Impact Report.

The policy which relates to Rancho Cielo is:

Policy 4b: Require proposals for all permanent and transient occupancy residential developments for which Environmental Impact Reports are necessary to demonstrate to the County that present and forecasted noise levels can be rated acceptable at each building site based on development standards displayed in the following table.

DEVELOPMENT STANDARDS: NOISE

	Residential Areas Where Preexisting* Noise Levels Are CNEL 55 or less	Residential Areas Where Preexisting* Noise Levels Are CNEL 56-64	Residential Where Preexisting* Noise Levels Are 65 CNEL or Greater
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Acceptable	CNEL $\hat{1}$ 55 dB (A)	CNEL $\hat{1}$ 60 dB (A)	CNEL $\hat{1}$ 65 dB (A)
Normally			
Unacceptable	CNEL = 55/75 dB (A)	CNEL = 60/75 dB (A)	CNEL - 65/75 dB (A)
Unacceptable	CNEL $\hat{1}$ 75 dB (A)	CNEL $\hat{1}$ 75 dB (A)	CNEL $\hat{1}$ 75 dB (A)

* As established by present noise surveys or future noise surveys undertaken by the County.

The Rancho Cielo Specific Plan is of such a density to allow maximum flexibility in the location of dwellings. The Village Estates by the Village Center and the Country Estates along Via Ambiente may exceed acceptable levels due to increased traffic activity and close proximity to the fire station. Mitigation measures, where appropriate and feasible, will be implemented at the tentative map and planned development stage.

The heliport located adjacent to the fire station site may also generate unacceptable noise. Due to the infrequency of use and the emergency medical benefit, such a use may be considered appropriate. Furthermore, mitigation measures in the development of the heliport could eliminate any adverse impact to area-wide residences. This would be accomplished when a major use permit for the heliport is reviewed by the County. The Rancho Cielo Environmental Impact Report contains a detailed analysis of both short and long term noise impacts associated with this project and recommended measures to mitigate those impacts.

IX. HOUSING ELEMENT

The analysis in this section is of the Housing Element approved by the Board of Supervisors in January of 1979. The four major goals of this Element are:

- I. Assist the private sector to ensure that new residential construction will be adequate to meet the needs of the forecast population of the unincorporated area and the need for replacement of deteriorated units. Housing should be available in a variety of styles, tenancy types and prices in every community in the County in order to ensure this.
- II. Assist the private sector to assure that adequate affordable shelter within an adequate living environment will be available to all households in the unincorporated area. Maximize the use of all federal and state programs available to the County to provide housing for low and moderate income households.
- III. Assist the private sector by the expeditious processing of all ministerial and discretionary land use permits.
- IV. Existing housing stock should be maintained in good repair and existing residential communities protected from deterioration. All neighborhoods should have adequate and coordinated public and private services and facilities, clean air, quiet and pleasant surroundings, reasonable assurance of safety and security, and a sense of community life.

The Rancho Cielo Specific Plan proposes a variety of housing types to include clustered residential in planned developments, Village Estates (townhouses) located near the middle of the

project at a density of 2-52.1 dwelling units per acre -and Country Estates with a minimum lot size of one acre. This variety will allow for availability to a wide range of income groups.

The remaining policies of the Housing Element do not appear to relate to Rancho Cielo and will not be discussed here. The emphasis of the Element is directed to County/State/Federal agencies and programs, reinvestment and/or rehabilitation of existing urban areas, and encouraging builders to develop lower income housing in exchange for density bonuses. Since it is the County's stated policy to encourage this within areas designated "Current Urban Development Area" on the Regional Land Use Element and since Rancho Cielo is designated as "Estate Development Area" in said Element, the significance for this project is minimal.

X. CONSERVATION ELEMENT

The purpose of the Conservation Element is to identify and describe the natural resources of San Diego County and prepare policies and action programs to conserve these resources. This Element is organized into sections which discuss General Conservation, Water, Vegetation and Wildlife Habitat, Minerals, Soil, Astronomical Dark Sky, and Cultural Sites.

A. General Conservation

This section discusses the need for a program to designate areas as "Resource Conservation Areas" throughout the County. That was recently accomplished for a portion of the Rancho Cielo project. Generally, Escondido Creek and the adjacent major canyon are significant due to endangered wildlife and rare plants. The Rancho Cielo Specific Plan proposes to preserve these areas in conformance with the above. A more detailed discussion is contained in the Environmental Impact Report.

B. Water

The policies which relate to Rancho Cielo include:

1. Decisions regarding the location, size and timing of service extensions will be in conformance with adopted growth management policies.
2. Local reliance on imported water should be reduced.
3. Water distribution systems should be designed and constructed to economically accommodate future use of reclaimed or desalinized water when technologically and economically feasible.

The Rancho Cielo Specific Plan conforms to all of the conditions, standards and requirements of the Olivenhain Municipal Water District. The type of extensions also conform to adopted growth management policies since they are to serve densities which conform to the County's Regional Land Use Element.

The Rancho Cielo Specific Plan also proposes a water reclamation system. That system will ultimately recycle approximately 265,500 gallons of water per day. That water will be used for productive purposes on-site and will conform to all requirements of the County of San Diego and the Regional Water Quality Control Board. In that light, The Rancho Cielo Water

Reclamation System is consistent with the following wastewater policies:

Wastewater discharges shall not adversely affect the beneficial uses of receiving waters.

2. The County will encourage a project which will promote the reclamation and reuse of wastewater.

The County (The Rancho Cielo Sanitation District) was once going to be the sewer provider for this project and an on-site treatment facility and reclaimed water reservoirs were originally proposed to serve the project. When other major projects in the San Dieguito Valley were approved by the County, OMWD agreed to supply both water and sewer services for these projects and the Rancho Cielo project. LAFCO approved the annexation of all these projects into OMWD's sewer service district and abandoned the Rancho Cielo Sanitation District. OMWD's treatment plant that also serves Rancho Cielo, is located on the 4S Ranch site. Rancho Cielo generates reclaimed water, but it is utilized in other areas in the San Dieguito Valley and no reclaimed water for this system is utilized in the Rancho Cielo project. Therefore, a water reclamation facility and the reclaimed water reservoir on the Rancho Cielo site are no longer required or necessary.

C. Vegetation and Wildlife Habitats

1. The County will act to conserve and enhance vegetation, wildlife and fisheries resources.
2. Wildlife conservation shall be given a high priority in County park acquisition and development programs.
3. San Diego County shall encourage the use of native plant species in review of landscaping and erosion control plans for public and private projects.
4. If a project is determined to have a significant adverse impact on plants or wildlife, an acceptable mitigating measure may be a voluntary donation of land of comparable value to wildlife.

The Rancho Cielo Specific Plan addresses the above policies in the Land Use Element section and the Environmental Impact Report, as they relate to the above:

1. Escondido Creek, the major canyon and supporting wildlife corridors are preserved almost entirely. Other significant wildlife areas and areas with rare and/or endangered plant species are preserved as shown on the Land Use Plan Map.
2. In areas where grading is necessary for roads or other improvements native vegetation will be utilized to minimize visual impact and erosion potential. This will be accomplished as conditions to tentative subdivision maps or, in the case of the neighborhood commercial center, a site plan.

D. Soil

The policies in this section which relate to Rancho Cielo are:

1. The County recognizes the need to assess the physical suitability of a project site for both the proposed use and proposed density.
2. To prevent erosion and slippage in man-made slopes, approved low maintenance trees, bushes and grasses which establish themselves quickly should be planted.
3. The County will regulate major land clearing projects to minimize significant soil erosion, destruction of archeological, historic and scientific resources and endangered species of plants and animals.

The Rancho Cielo Specific Plan Land Use section and Environmental Impact Report discuss the soils and geological limitations of the site. In summary, the areas of development on Rancho Cielo are those areas that were determined to be appropriate due to minimal limitations.

E. Cultural Sites

The policies in this section which relate-to Rancho Cielo are:

1. The County shall take those actions which will seek to conserve and protect significant cultural resources.
2. Conservation of cultural resources shall be given a high priority in the County park acquisition and development programs.
3. The County will use the Environmental Impact Report process to conserve cultural resources.
4. Encourage use of open space easements in the conservation of high-value cultural resources.

The Rancho Cielo Specific Plan proposes to mitigate all impacts associated with archaeological resources on the site. This will be accomplished through the Environmental Impact Report process and will be made conditions of approval on all discretionary projects associated with Rancho Cielo. A more detailed description of these sites and mitigation measures is included in the Environmental Impact Report.

XI. ENERGY ELEMENT

The Energy Element is an attempt to rationally develop a strategy to direct actions within the County toward a more conservative and efficient use of its energy resources and plan ways to assure a reliable, adequate supply of energy. The goals/policies which apply to the Rancho Cielo Specific Plan are as follows:

Goal 3:

Maximize Energy Conservation and Efficiency of Utilization:

Policy UT1: Encourage energy conservation in residential and commercial space heating.

Policy UT2: Encourage energy conservation in residential and commercial space cooling.

Policy UT3: Promote energy conserving measures in residential and commercial water heating.

Policy UT12: Promote strict County water conservation and recycling measures as a means of conserving energy.

Policy US 1: Encourage innovative building design and orientation techniques which conserve energy.

Policy US4: Promote land use aimed at minimizing transportation requirements.

Policy TI: Promote the availability of safe and practical walking and bicycling routes within the County.

A. Policies UT1, UT2, and UT3

The Rancho Cielo Specific Plan proposes to utilize solar water heating for all phases of development. Solar space heating is also under consideration although not considered mandatory at this time. Development and construction of dwelling units, commercial and public facilities will comply with all State and County codes as they apply to insulation requirements.

B. Policy UT12

One of the major elements of Rancho Cielo is a water reclamation system. ~~That system will recycle up to 265,500 gallons of water per day for productive uses on-site. Rancho Cielo generates reclaimed water, but it is only utilized in other areas in the San Dieguito Valley in accordance with OMWD's Sewer and Reclaimed Water Plans.~~

C. Policy USI

This policy has been more fully analyzed and discussed in the section of this plan dealing with Solar Feasibility. Please refer to that section for further details.

D. Policy US4

The Rancho Cielo Specific Plan proposes a number of features intended to minimize transportation requirements. Those include:

1. Clustering of residential units in close proximity to major circulation routes.
2. Locating commercial centers within the development to lessen the need for trips outside the area and to satisfy daily shopping requirements.
3. Providing a post office contract station within the Village Center so that residents need not travel to Rancho Santa Fe to deliver and pick up mail.

E. Policy TI

Bicycle routes will be provided as required by the County as a condition of individual tentative subdivision maps.

XII. SAN DIEGUITO COMMUNITY PLAN

The purpose of the San Dieguito Community Plan is to implement the Regional Land Use Element. It also establishes specific goals, objectives and policies intended to guide development decisions within this unincorporated area. Like the Regional Land Use Element, the San Dieguito Community Plan is divided into sections. Each section will be discussed individually. The description of the Prados San Dieguito Specific Planning Area is not discussed separately since this entire document as well as the Plan of Land Usage represents implementation of those guidelines.

A. San Dieguito Goals

Since the number of goals and objectives contained within the San Dieguito Community Plan is extensive, each group of goals and how they relate to Rancho Cielo will be discussed. Those goals are grouped as follows: Overall, Residential, Environmental, Education, Commercial, Circulation, and Public Services and Utilities.

B. Overall Goals

1. Perpetuate the present sense of spaciousness and semi-rural living.
2. Encourage the preservation of the existing pattern of distinct, identifiable communities, separated by lagoons and open space of low intensity uses.
3. Establish and maintain San Dieguito as an economically and socially balanced community accommodating gradual and orderly development which harmonizes with the environment.
4. Promote and maintain a stable, permanent population with a high degree of home ownership.

The Rancho Cielo Specific Plan implements the above goals:

1. By providing a planned community at a density of one dwelling unit per 3.65 acres.
2. By designing all roads and land uses to conform to existing topographic features as much as possible. This will encourage the establishment of distinct neighborhoods separated by canyons, waterways and their minor tributaries.
3. By including a phasing plan which will be responsible for insuring that development does not precede the ability of the area to serve it.
4. By proposing a variety of housing types to offer choice to future residents. Those types include Village Estates adjacent to the commercial center, Country Estates with a minimum lot size of one acre, and planned developments. A breakdown of this is contained in the Land Use Section.
5. By anticipating that all 748719 residential units would be owner-occupied since each dwelling will be custom built. The planned developments will require approval of design through the major use permit process. The Village Estates will require approval of design through a site plan process ("D" designator).

C. Residential Goals

Goal:

Enhance the present living environment while accommodating gradual residential development which harmonizes with the natural environment.

Objectives:

1. Encourage very low density development in rural areas by encouraging greater flexibility in improvement requirements for lots of one acre or more.
2. Encourage cluster-type housing and other innovative housing design that provides adequate open areas around these developments.
3. Tailor residential development to the terrain.
4. Encourage street planting, landscaping and undergrounding of utilities.
5. Encourage a high standard of design, materials and workmanship in all construction.
6. Minimize extensive or premature grading.
7. Discourage residential development of steep slopes, canyons, floodplains, prime agricultural land and where development would block scenic views and vistas.
8. Encourage orderly residential development, expand utility systems with minimum of expense to the taxpayer and avoid leapfrog subdivisions.

The Rancho Cielo Specific Plan implements the above goals by:

1. Clustering residential lots to achieve maximum preservation of all environmentally significant areas.
2. Proposing rural improvement standards such as private roads with rolled berms, street lights for safety and emergency purposes only, landscaping of slopes with native vegetation, and preservation of all significant features (such as rock outcroppings and steep slopes).
3. Tailoring all development to the terrain, including residential, commercial and public facilities.
4. Holding all grading to a minimum. Alternatives such as bridges and steeper grades for streets are incorporated into the Specific Plan to accomplish this goal.
5. Phasing all development to avoid haphazard implementation of the Specific Plan. This phasing will consider circulation, impact on adjacent areas, public services and economic feasibility.

D. Environmental Goals

Goal:

Insure a desirable, healthful and comfortable environment for living while preserving San Dieguito's unique natural resources.

Objectives:

1. Encourage types and patterns of development which minimize water pollution, air pollution, fire hazard, soil erosion, silting, slide damage, flooding, and severe hillside cutting and scarring.

2. Encourage the preservation of the best natural features of the area in their natural state and avoid the creation of a totally urbanized landscape.
3. Encourage the use of natural channels and streambeds, discourage the need for artificial drainage structures, and encourage the use of runoff and drainage for ground water recharging.

The Rancho Cielo Specific Plan implements the above by:

1. Designing residential lots and other developed areas in only those locations determined to be appropriate based on environmental constraint studies.
2. Proposing no development within the Escondido Creek and its major adjacent canyon that would pose a safety hazard or require construction of flood control channels.
3. Proposing the development of residential areas without the creation of standard subdivision pads. In several cases, the planned development or site plan processes ~~process~~ will be utilized.

E. Education Goals

Goal:

Maximize educational opportunities for all age groups through a high standard of educational programs and physical facilities.

Objectives:

Coordinate school facility planning with residential development to assure that school facilities will be available to accommodate the increased school population without overcrowding.

The Rancho Cielo Specific Plan addresses that objective as follows:

1. The planning area includes four separate school districts, thereby minimizing the impact this development will have on anyone district.
2. Agreements will be signed with each district to assist in the provision of educational facilities to accommodate the students generated from this project.

F. Commercial Goals

Goal:

Provide for well designed and located commercial areas which are compatible with the character of the community.

Objectives:

1. Design and construct all commercial areas with sufficient off-street

- parking and loading facilities.
- 2. Encourage landscaping in the design of new shopping areas and commercial buildings to assure that they blend with surrounding areas.
- 3. Provide neighborhood shopping and service centers to satisfy the daily needs of adjacent neighborhoods and locate them in areas with easy, safe pedestrian and bicycle access.
- 4. Encourage the concentration of shopping areas to avoid the strip approach to future commercial development.
- 5. Encourage the reasonable regulation of signs to preserve the basic character of the community and to avoid adverse effects on property values.

The Rancho Cielo Specific Plan implements these goals by:

- 1. Requiring that detailed site plans be developed prior to construction of the neighborhood commercial center to properly address all of the site-specific concerns expressed above.
- 2. Planning centrally located commercial centers that provide for the daily needs of the Rancho Cielo community and adjacent areas.
- 3. Providing for well-defined and nonexpandable commercial areas that do not create future pressure for additional commercial development within this planned community.

For additional discussion of the Rancho Cielo commercial areas, please refer to the Commercial Feasibility Study.

G. Circulation Goals

Objectives:

- 1. Minimize private driveway access onto both major and residential collector roads. Design roads so as to minimize conflicting traffic movements such as turning, curb parking, uncontrolled access and frequent stops.
- 2. Construct roads following the natural contours to minimize cuts and fills; avoid grid street patterns.
- 3. Design roads to enhance scenic areas.
- 4. Encourage roadside median landscaping.
- 5. Separate pedestrian, bicycle and vehicular traffic.
- 6. Encourage greater flexibility in road design standards to promote retention of a rural atmosphere.

The Rancho Cielo Specific Plan implements the above goals by:

- 1. Proposing a private road circulation system which has rural improvement standards, and meanders through the site thereby minimizing grading impacts.

2. Designing all phases of Rancho Cielo to strictly comply with all standards and requirements of the County of San Diego including the County Standards, Zoning Ordinance and Subdivision Ordinance.

H. Public Services and Utilities Goals

Goal:

Create and maintain local organization, operation and procedure which has sufficient resources to implement community plans and policies effectively; promotes efficiency; and provides optimum public and utility services at a minimum cost in taxes and utility charges; and coordinates San Dieguito's policies and priorities and those of the wider San Diego regional community.

Objectives:

1. Provide a high level of health care, ambulance service and fire protection.
2. Insure proper location, adequate size and lower cost by acquiring public facility sites in advance of need.
3. Underground all new distribution power and communication lines. Encourage undergrounding of existing utility lines, especially in conjunction with street improvement programs.
4. Discourage all overhead utility lines in scenic areas.
5. Assure that sewer trunk extensions, treatment plants, ocean outfalls and development which may be served by these facilities, will not result in any adverse impact upon the environment.
6. Encourage optimum sewage reclamation, water conservation, recharging of underground waters, and creation of recreational lakes
7. Discourage the extension of sewer service to those areas not designated for urban uses on the community plan.

The Rancho Cielo Specific Plan implements the above goals by:

1. Proposing that all public facilities and services be available prior to or concurrent with need.
2. Providing paramedic and emergency evacuation (heliport) services in conjunction with full-time fire protection functions.
3. Placing all new utility lines underground.

COMMERCIAL FEASIBILITY STUDY

I. INTRODUCTION

The purpose of this study is to determine the amount and types of neighborhood commercial activities which should be included within the Rancho Cielo community. This planned community consisting of 719 dwelling units, covers approximately 2,668 acres of land in the San Dieguito Community Planning area, lying north of the Del Dios Highway at Lake Hodges.

The following update as underlined has been authorized by Mooney-Letteri and Associates, Inc., as one of the several background analyses, which together will provide the basis for the revised development plan.

The San Diego County Board of Supervisors, in their approval of the Rancho Cielo Specific Planning Area, had this to say about commercial activities:

"The Specific Plan will analyze the need for civic and commercial services, schools, recreational facilities and fire protection services, and

D. Commercial

1. Neighborhood Commercial facilities may be located within the project area. Those facilities shall provide for limited small scale commercial uses serving the daily need of the residents of the project and immediate surrounding vicinity. A feasibility study shall be prepared to justify the sizes and type of commercial activities and to demonstrate how such uses will limit the daily trips for future residents of this area into outlying communities.
2. Neighborhood Commercial use areas shall be located and designed so as not to interfere with adjacent or nearby residences."

Based on the foregoing conditions, it is the primary goal of this feasibility study to find a realistic balance between "limited small scale commercial uses" and commercial uses which are adequate in scale to minimize residents' commercial trips into outlying communities.

II. THE SETTING

A. Population Growth

The Rancho Cielo community lies within one of the fastest growing areas in the United States, North San Diego County.

Total San Diego County population grew from 1,543,668 in April 1975, (1) to 1,767,450 in January 1979, (2) or 3 percent annually.

During the same time period, the San Dieguito Community area grew in population from 39,088 to 51,630 (2), or 3 percent annually.

Total county population is expected to grow to 2.46 million by 1995 for a 2.5 percent annual growth rate. The San Dieguito area is projected to grow to 80,600 for a 3.7 percent annual growth rate. (3)

B. Income

Median household income in San Diego County was \$10,982 in 1975 and in the San Dieguito area, it was \$13,407. (4) Income has grown at about 10 percent annually in San Diego County; thus, for 1980, median household income for the San Dieguito area is projected at \$21,600 versus a total county median income of \$17,690. It is important to note that these are statistical averages, and are based on 1975 census figures where almost 50 percent of the households did not respond. Actual household income levels can be determined only where financing of new homes is required. With the above caveats, it is reasonable to expect that, in the San Dieguito area, in 1980, about half of the household incomes are above \$21,600 and about half are below. In neighboring Rancho Santa Fe, household incomes are likely to be considerably higher than the median, based on the value of homes and land there.

The County's report, "Commercial Land Analysis for the San Dieguito Community Planning Area," completed in 1979, reached this conclusion regarding income levels:

The income levels (for San Dieguito) are much higher than the countywide average and in particular the above-\$29,000 category (frequency) is even higher for North County. This is an indication that the San Dieguito residents are likely to demand more than the "average" . . . (in) such activities as specialty shops (i.e., antique furniture), and office professional services (i.e., lawyers), etc. (5).

C. Projected Annual Household Income for Rancho Cielo

It is anticipated, based on historic relationships, that the annual incomes of households which occupy homes in Rancho Cielo will be far above the median and will most likely concentrate in the over \$40,000 category. The lot costs at Rancho Cielo will be high, reflecting considerable front-end on- and off-site development costs, as well as the high desirability and prestige of the community's geographic location and spectacular setting.

Comparable lot costs in the area immediately to the west of Rancho Cielo, but outside the Rancho Santa Fe Covenant Area, range from \$12,500 per acre to \$30,000 per acre, with no improvements, for generally usable lots, but with no views in particular. The most recent site went for \$19,620 per acre. (6) Lots within the Covenant, by comparison, demonstrate the effect of the Covenant restrictions and the established prestige of Rancho Santa Fe. There, lots are listed for \$350,000 to \$375,000 per acre, or more than ten times the listed value of properties outside the Covenant boundaries.

Rancho Cielo will be governed by a similar set of Covenant restrictions and such promised protection should push lot values up sharply. It is anticipated, therefore, that lot prices, for four-acre lots in Rancho Cielo, will start at a minimum of \$150,000, excluding on- and offsite development costs. With the latter costs added in, lot costs easily could exceed \$200,000.

Using the more conservative figure of \$150,000 per lot, a purchaser of such a lot would require a minimum annual income of \$57,600 to qualify for an 80 percent loan ($\$150,000 \times .80 = \$120,000 \times .01 = \$1,200$ (monthly payment) $\times 4 = \$4,800$ (monthly income) $\times 12 = \$57,600$). Outright cash purchases of such lots would in most cases speak for themselves regarding the purchaser's income.

The conclusion is that average household before-taxes income in Rancho Cielo will, at the least, approximate \$60,000 per year.

III. MARKET ANALYSIS

A. Potential Market for Commercial Services at Rancho Cielo

1. Population on-site.

When fully developed, the Rancho Cielo community will have approximately 719 dwelling units and 1,735.2 residents, based on a household size of 2.4 persons. (3)

2. Population within 15 minutes of the community.

Based on residential densities set forth in the County's General Land Use Plan, a computer run was made on January 3, 1980, to determine the number of people who would be living within shopping distance of Rancho Cielo in future years.

The results of that computer run show that by the year 1995, 106,997 persons will live within 15 minutes driving time, using existing streets of the project; 13,557 persons will live within 10 minutes driving time, and 669 persons within 5 minutes. (The latter figure represents primarily the population of the Del Dios community).

These figures do not include Rancho Cielo, Fairbanks Ranch or any other developments not yet built. The figures reflect general plan densities and existing streets. Complete results are shown in Table I.

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Table I
Population as a Function of Driving Times
from Rancho Cielo

Driving Times	1975		1985		1995	
	Population	DU's	Population	DU's	Population	DU's
0-5 min (%)	615 (1)	226 (1)	669 (1)	256 (1)	669 (1)	257 (1)
0-10 min (%)	5754 (10)	1877 (8)	9883 (11)	3858 (10)	12888 (12)	5186 (11)
10-15 min (%)	53017 (89)	29016 (91)	72352 (88)	33433 (88)	93440 (37)	41185 (88)
Cumulative						
0-15 min. (100%)	59386	23019	87605	37548	106997	46628

The following exhibit illustrates the general locations of persons who are within 5, 10 and 15 minutes driving time. In urban areas, the trade area of a neighborhood shopping center is 10 minutes driving time. In rural areas, such as the present setting, this trade area can be larger by necessity depending on the distance to the next available center offering similar services. Thus, to use conservative estimates, it can be anticipated that the population of the service area for this development between 10 and 15 minutes away, will be 49,000 in 1985, and 60,000 in 1995.

3. Spendable Income

According to the U.S. Bureau of Labor Statistic's costs of living figures of 1977, approximately 35 percent of a family of four's budget (after taxes) was spent on food, clothing and personal care, and miscellaneous expenditures.

Since the 35 percent is for all consumer items, this report assumes that 20 percent of the total budget spending will be done in community and regional center, leaving 15 percent of the budget to be spent in the neighborhood centers.

Applying the 15 percent figure to the 719 households at Rancho Cielo and keeping in mind that this figure derives from an average family's budget, rather than actual income, it can be anticipated that at a minimum, the amount of income available for local shopping will approximate \$5,400 per household per year at Rancho Cielo or \$4.16 million for the entire community.

4. Demand for Office Space

The demand for office space is not well documented in the San Dieguito area. There are, however, indicators of substantial pent-up demands.

a. Throughout North County there is a boom in office, commercial, and industrial development, reflecting, and serving, the population growth.

b. There is virtually no office space available in Rancho Santa Fe, the nearest community to Rancho Cielo. Nor is there any new construction occurring in Rancho Santa Fe.

c. Fairbanks Ranch, south of Rancho Santa Fe, and 9 miles from the project, began development in the first half of 1980, has approximately 36,000 square feet of office space planned in its 55,000 square foot commercial center. A bank is the primary tenant in that center.

d. There are very few doctors', dentists', veterinarians' or attorneys' offices serving the area encompassed by Rancho Santa Fe, Rancho Cielo and the existing housing developments lying in-between.

These foregoing indicators, combined with the increasing population anticipated in the area surrounding the project, demonstrate the need for office space to be included within the commercial center. A particular effort should be made to solicit tenants who offer medical, legal and accounting services.

5. Transient Traffic

a. Del Dios Highway

Notwithstanding efforts to plan self-contained communities to hold down the increase in traffic, it is anticipated that Del Dios Highway will carry substantial transient traffic in the future. It is presently the major through-connection between I-15, Escondido and Rancho Penasquitos, and I-5 and the coastal communities and beaches. Much of this traffic comes from households already accounted for within the 15-minute driving distance from the project, but much also comes from households beyond that limit. The exact proportions are unknown. In June 1979, there were 9,154 trips per day on Del Dios Highway, trips which would pass by a neighborhood center located on or near the highway peak hour traffic was 930 trips per hour. (7)

b. Lake Hodges Visitors

In addition, the community of Del Dios received a large number of visitors to Lake Hodges during the summer months, amounting to some 1,000 persons per day from May to October. (8)

6. Trade Area Spendable Income

In addition to the 1,850 persons who will live at Rancho Cielo, there will also be some 49,000 persons living within 10 to 15 minutes driving time, i.e., within the trade area, of the project by 1995. Rancho Cielo spendable income, available for neighborhood commercial-type purchases, will be about \$14.6 million. Total trade area income available for neighborhood shopping is estimated to be \$30 million in 1980, \$64 million in 1985, and \$135.5 million in 1995. These estimates are conservative, based on income growth of 10 percent per year and the percentage of food and neighborhood center expenditures remaining constant at 15 percent through 1995. The projections are reached by using the following assumptions:

Table II
Assumptions to Project Spendable Income
for Neighborhood Shopping

	1980	1985	1995
Trade Area Households (9)	12,525	20,415	25,000
H/H Median Income (10% Annual Growth)	\$21,600	\$24,790	\$90,225
Tax Rate	25%	40%	60%
% Income Available	15%	15%	15%

7. Projected Trade Area Support for a Neighborhood Center

Given the projected amount of spendable income available for neighborhood shopping, it is relatively simple to calculate how much commercial space the trade area could support, by dividing trade area income (paragraph 6, *infra*) by the median required dollar sales per square foot of a neighborhood center. The latter figure was estimated to be \$121 of sales per square foot in 1978, based on a survey of 49 far west neighborhood centers conducted by the Urban Land Institute. This survey is discussed in greater detail under "Neighborhood Shopping Center Standards" (Page 47, *dupra*).

a. Rancho Cielo Support

The 719 households at Rancho Cielo with \$5,400 of spendable income available per household, would, by themselves, be able to support about 27,000 square feet of neighborhood shopping in 1980:

$$\begin{aligned} \$5,400 \times 719 &= 26,593 \text{ sq. ft.} \\ \$146/\text{sq. ft. (a)} \end{aligned}$$

The trade area described could support the following amounts of neighborhood commercial space for the years indicated:

Spendable Income -- Sales

Available (b) -- sq. ft. GLA (c) = sq. ft. GLA (d)

1980	\$ 30.0 million	146	205,000
1985	\$ 64.0 million	235	270,000
1995	\$ 135.5 million	379	355,000

8. Conclusion

The conclusion is that there is adequate market support for a neighborhood commercial center at Rancho Cielo. In addition there are also indicators that a moderate amount of office space could be supported as part of the center. However, it is recommended that the search for office tenants be limited to professional and medical services, which are in short supply in the area, and which seem to show the most promise in succeeding.

B. Commercial Centers Within 10 Miles of Rancho Cielo

Having established a viable trade support population within 10 to 15 miles driving time from the project, the report now surveys existing and proposed commercial facilities within approximately the same area.

The primary purpose of this survey was to determine the adequacy of neighborhood commercial facilities in Rancho Cielo's trade area.

A field survey of major commercial facilities and centers was made in January 1980. The results of this survey show that there are no commercial centers between Rancho Santa Fe and Escondido, where the project lies. Further, there is an insignificant amount of commercial zoning in the area. Consequently, if nothing were done, residents of Rancho Cielo would be compelled to drive to either Escondido or Rancho Santa Fe for even the most basic sundries.

The survey shows an array of community regional shopping centers, which are more than adequate to serve Rancho Cielo residents.

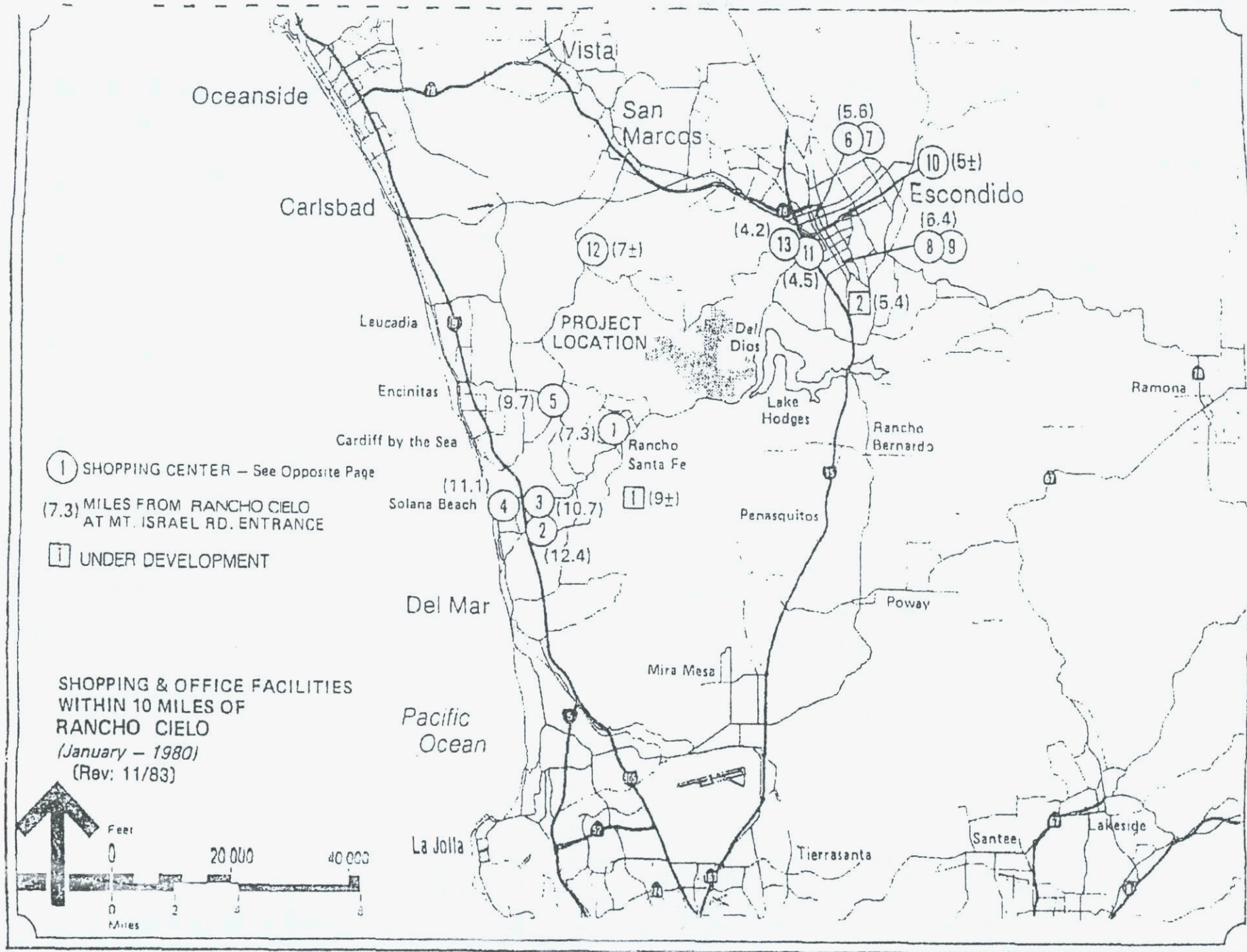
Two new centers are under development.

1. Commercial center in the Fairbanks Ranch, 9+ miles away to serve those residents and travelers on SA 728.

2. Kit Carson Park Regional Center, in Escondido, 5.4 miles away, at I-15 and Via Rancho Parkway.

Lastly, it should be noted that the community of Del Dios has three commercial uses, a restaurant, a general store, and a plant nursery; however, both the store and nursery appear to be geared to serving Del Dios residents only.

It is clear, therefore, based on the survey, that the new community of Rancho Cielo, as well as the current residents in the area, are in need of local-serving neighborhood commercial facilities, and particularly in need of a full-service convenience center.



Shopping and Office Facilities
Figure 17

Table III
Existing Commercial and Office Centers

1. <u>Rancho Santa Fe</u> (7.3 miles)	4. <u>Plaza West</u> (11.1 miles)	10. <u>Downtown Escondido</u> (5 miles)
13 shops	<u>Solana Beach</u>	<u>Central Business District</u>
2 markets	20 stores	
4 banks	1 market	
1 plant nursery	1 drug store	
1 gas station	3 banks (one under constr.)	
17 realtors	1 gas station	
3 stockbrokers	1 optometrist	
1 pharmacy	1 restaurant	
1 hotel		
4 attorneys	5. <u>Country Corner Center</u> (9.7 miles)	12. <u>La Costa Meadows Industrial Center</u> (7 miles)
4 travel agencies	<u>Rancho Santa Fe Rd. & Encinitas Blvd.</u>	<u>Rancho Santa Fe Rd. & Questhaven Rd.</u>
1 insurance agency	4 stores	
5 office buildings	1 convenience store	
3 restaurants	1 dental office	
	2 real estate offices	
		13. <u>Escondido Community Shopping Center</u> (4.2 miles)
2. <u>Flower Hill</u> (12.4 miles)	6. <u>Midtown Plaza, Escondido</u> (5.6 miles)	20 stores at I-5 and Valley Parkway
55 stores and shops	4 stores	
1 market	1 market	
3 banks	2 cinemas	
2 plant nurseries		
2 gas stations	7. <u>Escondido Square</u> (5.6 miles)	
2 realtors	2 stores	
1 pharmacy	1 market	
1 travel agency	1 bank	
4 restaurants		
3 cinemas	8. <u>Felicita Plaza, Escondido</u> (6.4 miles)	
1 racquetball center	8 stores	
1 vacant	1 market	
	2 banks	
3. <u>Plaza of the 4-Piags</u> (10.7 miles)	1 travel agency	
<u>Solana Beach</u>		
13 stores	9. <u>Felicita Village, Escondido</u> (6.4 miles)	
1 market	28 shops	
2 banks	2 restaurants	
1 office building		
2 restaurants		
6 vacant		

Table IV
"Under Development"

1. Fairbanks Ranch (9 miles)
55,000 sq. ft. commercial and offices (2/3)
2. Rit Carson Regional Center (5.4 miles)
I-15 and Via Rancho Parkway
500,000+ sq. ft.

IV. NEIGHBORHOOD SHOPPING CENTER STANDARDS

A. Minimum Support Population

According to the unauthoritative periodic surveys taken by the Urban Land Institute (ULI), Washington, D.C., (10) the minimum support population for a successful neighborhood shopping center ranges from 5,000 to 40,000 persons. The lower end is applicable to rural areas, since facilities are spaced further apart and choice of center is more limited.

B. Site and Size

Existing neighborhood centers range in size from 30,000 to 100,000 square feet of gross leasable area (GLA), and occupy a minimum site of four acres. The median size of 49 Far West Neighborhood Centers was 55,176 square feet GLA. Parking spaces averaged 5.5 per 1,000 square foot of GLA.

C. Sales per Square Foot GLA

The same survey shows that the retail sales per square foot GLA ranged from \$59.74 to \$194,894, with a median sale of \$121.31. This median figure represents 22 percent sales increase over the period 1975 to 1978.

D. Productivity of Tenants

In the same 1978 survey, ULI listed those tenants which produced the highest and lowest sales volumes in neighborhood centers nationwide. The following tables show these tenants:

Table III High Sales Volume Tenants in Neighborhood Shopping Centers (10)		Table IV Tenants in Neighborhood Shopping Centers (10)	
Tenant Classification	Median Sales Vol. Per sq. ft. GLA	Tenant Classification	Median Sales Vol. Per sq. ft. GLA
Garden Supermarket**	\$205.08	Music Student Dance	\$6.29
Liquor/Wine	178.73	Cosmetics	14.16
Convenience Market	130.72	Floor Coverings	16.61
Candy/Nuts*	121.51	Laundry	16.77
Radio/TV/Hi-Fi	102.21	Plant Store	18.22
Luggage/Leather*	98.14	Bowling Alley**	19.64
Fast Food/Carry Out*	97.63	Arcade/Amusement**	22.18
Ice Cream Parlor	96.29	Formal Wear/Rental	22.47
Super Drug*	89.46	Curtains/Drapes	28.13
	89.33	Costume Jewelry*	29.25
* These stores are identified as "High Total Rent" tenants.			
** These stores are identified as "Low Total Rent" tenants.			

This section of the report provides some insight into the operations of neighborhood center tenants, but does not reach conclusions. Depending on the objectives of the project owners, whether to attract high sales volume tenants, high rent tenants, or low sales volume tenants, the mix of center users can be solicited accordingly. These factors should be balanced against the commercial services needs of the area.

V. ISOLATED SHOPPING CENTERS

A neighborhood center at Rancho Cielo would be relatively isolated in the "urban" sense. It would be secluded in an area which although growing, is presently sparsely populated within a five-mile radius trade area. And, although some 49,000 persons are projected to live within the trade area by 1985, the immediate success, and thus survivability, of a commercial center depends on patronage from the immediately surrounding residents. There is thus some risk present in developing such a center, but coincident with a risk, there is also the necessity of offering commercial services.

The neighborhood center, therefore, plays an important role in enhancing the attractiveness of the residential community. This role is reinforced by the goal of providing as complete an array of commercial services to the project residents as possible, in order to minimize shopping trips into neighboring communities. The success of the commercial center will depend critically on two factors:

A. An aggressive marketing program to prospective tenants, with emphasis on the future market area.

B. Selection of tenants based on a combination of their reproductivity and service to residents in the immediate area.

VI. CONCLUSIONS

A. The Rancho Cielo community can support a neighborhood commercial shopping center if it is located to serve project residents, transient traffic and nearby residents. There will be some 15,000 trips per day on adjacent highways by 1985.

B. The immediate trade area lacks convenience-type commercial services and certain professional office services. There are adequate community and regional commercial facilities now available in the trade area.

C. Indicators show that a modest amount of office space within the commercial center can be supported.

D. The cohesiveness of the Rancho Cielo community will be enhanced by a community center within the project, composed of commercial, civic and residential activities.

VII. RECOMMENDATIONS

Two commercial centers may be included in the Rancho Cielo Specific Plan.

A. Rancho Cielo Village Center

The first commercial center should be located at a central point within the project, and could be comprised of the following uses:

1. Clubhouse, restaurant and recreational center, including a swimming pool, and tennis courts.
2. Post office contract station.
3. Leasable area for specialty shops, 5000-plus square feet for tenants and residents.
4. 20-40 townhouses to provide the opportunity for residents to purchase less expensive housing, and will contribute to the activity in the community center and to the security of the center 24 hours a day.
5. Rancho Cielo Association offices.

The size of the Village Center site should be 10 to 15 acres; this should include 3 to 4 acres for the clubhouse, commercial and civic use.

B. Rancho Cielo Neighborhood Commercial Center

The commercial center comprising 10 to 15 usable acres should be located on Del Dios Highway at the intersection with the westerly entrance to the project (also near the intersection with the alignment of SA 680). The following tenants should be solicited:

1. Market
2. Pharmacy
3. Plant nursery
4. Convenience/fast food store
5. Laundry and dry cleaners
6. Gasoline station
7. Leasable office space

The size of the neighborhood center site should accommodate 30,000 to 50,000 square feet GLA in buildings. Such a site would leave about one acre for future expansion. Office space should comprise 10 to 30 percent of the GLA. Offices should be designed for conversion to commercial use, for built-in flexibility. Office tenants should be concentrated in medical and professional services, but office space availability should also be presented to potential buyers of Rancho Cielo lots.

Sources--Commercial Feasibility Study

1. 1975 Special Census Bulletin #5, 6/76 County of San Diego.
2. County Database, January 1979, County of San Diego Department of Planning and Land Use.
3. Regional Comprehensive Plan Series IV Revision B Forecast, 1979, Comprehensive Planning Organization. Release January 1980.
4. Annual Review of Business Activity, 1979, San Diego Union-Tribune.
5. County Commercial Land Analysis for the San Dieguito Community Planning Area, 1979, prepared by Nick Marinovich, County of San Diego Department of Planning and Land Use.
6. San Diego Daily Transcript, January 28, 1980 edition "Lands Sales,"
7. Average Daily Traffic Counts, June 1979, California Department of Transportation.
8. City of San Diego Parks and Recreation Department.
9. These household figures are derived from "TMP Del Dios Computer Stats" taken January 3, 1980, which projects the number of households within 5, 10, and 15 minutes.
10. Dollars and Cents of Shopping Centers, 1978, Urban Lands Institute.

SOLAR FEASIBILITY STUDY

I. INTRODUCTION

A. Purpose

The purpose of this solar feasibility study is (1) to present workable active and passive solar systems and design features for incorporation into the Rancho Cielo Specific Plan, and subsequently, (2) to propose CC&R language which either encourages or requires contractors active in the Rancho Cielo community to comply with solar and energy conservation design criteria.

B. Overview

The Rancho Cielo community is located in the an area which is outside the natural gas service area of San Diego Gas and Electric (SDG&E). The State of California, through the Public Utilities Commission (PUC), has established criteria which make a new land development eligible to receive natural gas service at no cost to the developer, if the project does not exceed free-footage allowance requirements. Current criteria would make it possible for Rancho Cielo to receive gas services only if the developer advances to SDG&E up-front costs for the extension of transmission lines.

It is currently proposed whether Rancho Cielo will be served by natural gas. If gas service is not provided, this brings into play the County of San Diego's requirement that all new homes, built after October 1, 1979, in electric service only areas, will be equipped with solar hot water heaters (Ord. No. 5324 adopted December 12, 1978). A second provision of this ordinance requires solar water heaters on all new homes anywhere in the County after October 1, 1980. This report, therefore, proceeds on the assumption that active solar heating systems will be required by the County, but that in any case, it is the desire of the owners of the project to promote solar applications and energy conservation measures in the community.

In considering the application of efficient solar systems to new construction, it is important to carefully design the new structures as total solar and energy conservation units. Active solar systems, properly designed and sized, take into consideration the energy needs and energy losses of a structure. It therefore follows that a structure which is carefully designed and equipped to take advantage of passive solar heating and energy conservation measures will require a smaller, less expensive active solar system than a structure of the same size which does not include these features. Specific application of this interrelationship is presented below when the solar space heating system is discussed. In practice, a design will (1) first incorporate all feasible passive solar features and energy saving measures into the structure, then (2) measure the resultant heating and cooling needs and losses, and finally (3) determine the size of the active solar system to serve that structure. Steps (1) and (2) will dictate the size and cost of (3).

II. FEASIBLE ACTIVE SOLAR HEATING SYSTEMS

This section describes and provides cost estimates of three types of active solar systems: pool, water heating and space heating. We are indebted to the technical assistance of Southwest Energy Management, Inc., of San Diego.

A. Pool System

The systems described here are unglazed collectors for pool systems. The unglazed collector can be of two types, plastic or metal. Prices for both types of systems are listed.

Pool systems are sized in ratio to the surface area of the swimming pool. A 50 to 75 percent sizing factor is recommended when the collectors are within 30 degrees of south. Pool covers are not only recommended but mandated by state law on new pool installations.

System Type	Collector Area	Control System	Installed Price	Installed w/Ground Support Racks
Plastic	320 sq. ft.	Automatic	\$3,926	\$4,966
Copper/Aluminum	320 sq. ft.	Automatic	\$3,750	\$4,790
All Copper	320 sq. ft.	Automatic	\$4,606	\$5,646

B. Domestic Water Heating Systems

Water heating systems are sized according to the size of the house which reflects the number of occupants. This analysis assumes average to above-average sized systems.

The pricing of the water heating systems is based on quality components: all copper, glass-glazed collectors, self-lubricating pumps, all copper-insulated piping, etc.

	Collector Area	Solar Storage Tank	Installed System Price
Average Size	64 sq. ft.	100 gallons	\$3,272
Above Average Size	96 sq. ft.	120 and 66 gallons	\$4,972

C. Space Heating System

Without a specific set of blueprints, it is difficult to size and design a space heating system. The report therefore uses an existing installation as a representative system. The analysis provides a detailed financial summary of a residential solar space heating system. Since every space heating system must be individually designed to match the size, components, windows, insulation and passive solar features of the home, it is impossible to establish a "standard" space heating cost. However, most recent space/water heating designs and installations have been in the \$14,000 to \$24,000 range.

Based on the heat loss and gain data for this house, it is expected that the annual energy bill will approximate, at today's electric rates, about \$120 for heating, \$192 for cooling, and \$440 for domestic hot water, for a total of \$752. Using the solar system to supplement the space heating and domestic water heating, the energy bill will be reduced to \$290 per year. This results in a net annual savings of \$462 per year over a conventional heat pump with conventional electric water heating. It is estimated that the cost of the conventional heat pump backup system, including the ductwork, will amount to \$5,100 of the above-mentioned installed price. Therefore, the additional cost of the house due to just the solar space and domestic water heating systems is \$9,128 for the EC-2 system, and \$9,319 for the BEAC system. After taking into account the state and federal tax credits, which will be \$7,818 and \$7,923, respectively, the out-of-pocket cost for the solar heating system will then be \$1,310 for the EC-2 system and \$1,396 for the BEAC system.

The following table summarizes the projected cash flow attributable to this system during the first ten years.

Table 1
SOLAR SYSTEM CASH FLOW

Year	Cash Out ¹	Solar Savings ²	Tax Credits ³	Tax Deductions ⁴	Annual Cash Flow ⁵	Summation
1	\$1,065	\$453	\$1,580	\$300	\$1,268	\$1,268
2	1065	521	1,580	290	1,326	2,594
3	1065	599	1,580	280	1,394	3,988
4	1065	689	1,580	270	1,474	5,462
5	1065	792	1,580	260	1,567	7,029
6	1065	911		250	96	7,125
7	1065	1,047		240	222	7,347
8	1065	1,205		230	370	7,717
9	1065	1,386		220	540	8,258
10	1065	1,594		200	729	8,987

Footnotes to Table 1

- ¹ \$1,065 is the annual payment for thirty years at 11 percent of the principal cost of \$9,300.
- ² It is assumed that the solar savings will increase at 15 percent, which was the projected rate of increase of electric bills in 1979.
- ³ It is assumed that the tax credit is spread out equally over five years.
- ⁴ The tax deduction is the reduction in income tax due to the deductibility of the interest on the mortgage payment to cover the solar system. It is assumed that the family is in the 30 percent bracket.
- ⁵ This column is the total cash-in/cash-out for the year of interest.

The primary conclusion which can be derived from the above table is that the payback on the system is zero years. In other words, beginning in the first year the system is installed, the family will be able to completely cover the payments on the system with the utility bill savings.

and tax benefits. It may also be noticed that beginning in the sixth year, the increased utility bill savings are more than adequate to make up for the loss of the tax credit. The solar system is the one feature in the house for which the owners will realize an immediate return; in other words, they will be making money immediately upon its installation.

III. FEASIBLE PASSIVE SOLAR SPACE HEATING AND COOLING DESIGN FEATURES

The design features presented below comprise the current "state-of-the-art" in available literature and reference documents. It is important to note that passive solar design is an open ended and maturing discipline, in which the skill and experience of the architect and builder, in combining site design, structure orientation, building materials, conservation devices and active solar systems, will make the difference between acceptable and superior structures to take advantage of existing environmental and climatic conditions. As such, the elements of the design are not a mechanical list of features and equipment, but are rather the subjective concepts of the architect and his or her ability to recreate these concepts in working drawings. This report, then, does not attempt to conclude that there is a "best" overall design, but rather presents the essential feature which must be included within the minimal passive solar design of structures.

A. Site Planning

Orientation of as many lots as possible should be to provide southern exposure of the sun. In Rancho Cielo, with large lots, this will not be as important a factor as in higher density projects. It is desirable, nevertheless, to analyze each lot to ensure that it has protected solar access, the location of which will coincide with the proposed building site. This analysis will also satisfy the County of San Diego requirement that each lot have a minimum of 100 square feet of solar access measured 10 feet or more from the ground.

B. Structure Orientation

When designing the floor plan of the structure, the predominant living spaces (living room, family room, kitchen) should be located on the south and west sides of the structure. If this is done, then those spaces can take advantage of passive solar winter heating opportunities, and with proper internal and external screening, be shaded from the heat of the summer sun.

Care must be taken in the design and location of accessory structures and fences, so that the solar access is protected on-site.

C. Window Location

The majority of window areas should be located on the south, southeast and southwest sides of the building, again to take advantage of passive solar heating. Windows on the north side of the building should be small and double-glazed, to minimize heat loss on the cold north side.

D. Skylights and Clerestories

Skylights and clerestories serve to provide direct heat gain from the sun in the winter, and with proper overhangs, prevent the direct sunlight from entering the structure in the summer. The

use of skylights and clerestories must be accompanied by the use of interior building materials, known as "heat mass," which will absorb the heat during the day and release the heat at night. Masonry walls and floors and even water storage walls and tanks, are most often used.

Reflectors can also be used to enhance light gain in roof designs which are confined.

E. Thermal Storage Wall

This feature is a masonry- or water-filled storage wall, facing to the south, and covered by glass, which serves as the collector only. Water storage tanks are also used, directly inside the glass, and can be treated as an integral design feature of the room in which they are located.

F. Shading Techniques

Where a structure is designed to take advantage of the heat of the winter sun, those windows and other openings must also be protected from the summer sun. There are a number of techniques to do this:

1. Solar Shades and Overhangs

These are either mounted over the windows or openings, or moving shades which are manually or mechanically drawn over the openings. Reflector overhangs can also be used to block direct sunlight, but still gain the heat into the structure.

2. Angled Splaying of Exterior Window Frames

This will admit the winter sun, but block the summer sun.

3. Trees and Plants

Deciduous trees should be used on the south side which admit the winter sun when barren but block the summer sun when in bloom. These types of plants can be combined with trellises over patios.

On the north and northwest, evergreen trees and hedges should be used to provide a windbreak.

IV. APPLICATION TO MULTI-FAMILY AND NON-RESIDENTIAL STRUCTURES

Since little work has been published or analyzed on the application of active and passive solar systems to other types of structures, it is inadvisable, in this report, to reach any conclusions about feasibility or economics. Two conclusions can be reached, however:

A. The residential active solar heating systems described in this report are readily adaptable to other buildings, with the feasibility being dependent on the water and space heating needs of the building and the life cycle cost analysis of the system, using the same methodology as in Table 1 of this report.

B. The passive solar heating and cooling features are all readily applicable to any type of structure, and it will be recommended in the "Design Guidelines," Section IX below, that all structures in Rancho Cielo incorporate passive design features.

V. FEASIBLE ENERGY CONSERVATION MEASURES

As stated in the "Overview" section of the introduction to this report, the cost and efficiency of active solar systems will vary according to the insulation of structures from heat gain or loss. Accordingly, the following energy conservation measures are provided. We are indebted to the Energy Consumer Help Office (ECHO) for their technical assistance.

A. Weatherization

Weatherization is an important step in building an energy-efficient home. Included in the weatherizing of a home are: insulation of ceilings, walls, floors and doors, caulking and weatherstripping, double-glazing of windows, and attic ventilation.

In California, insulation totaling R-19 is recommended for ceilings and is the standard for new construction. Amounts greater than R-19 for ceilings may be justified in colder areas and where electric heating and air conditioning is used. There is not a maximum quantity restriction on ceiling or wall insulation. However, additional insulation may not be cost-effective, depending on the climate and design of the house. Insulation has the quality of diminishing utility, i.e., 12 inches of insulation will not conserve twice as much energy as 6 inches.

No matter how the home is heated or cooled, heating and cooling costs can be reduced by as much as 20 to 30 percent when insulation is used.

1. Insulation

- a. Wall insulation should consist of R-11 to R-21.
- b. Ceiling insulation should consist of R-19.
- c. Insulated exterior doors should have 1- to 2-inch solid wood core or 1 3/4 inch metal solid polystyrene core with thermal break or 1-inch metal solid urethane foam core with thermal break.
- d. R-11 insulation is needed in floors over vented crawl spaces and other unheated spaces (garages, porches, etc.) and in cantilevered overhangs at header joists and around perimeter of concrete slabs on a grade. Unvented crawl spaces should be insulated along foundation walls.

2. Caulking Types of Uses

- a. Oil base: Forms a bond between wood, masonry and metals.
- b. Acrylic-latex: Fast-drying compound that takes point well. It is particularly suited to interior caulking.

- c Butyl: The best bet for rough metal-to-masonry jobs, long-lasting.
- d. Polyvinyl: Adheres to all surfaces including silicone, excellent where material is not to be painted.

Lead-base caulking is not recommended because it is toxic and prohibited in many states.

Caulking should be done between siding and windows or door frames; between siding and drip caps such as those above sliding doors; under windowsills where they meet the siding; at all corners where siding comes together; where chimneys and stacks meet the roof; between any protrusions and the main part of the house; where two different construction materials meet; where two different parts of the house are joined.

3. Weather-stripping

Outside weather-stripping comes in four different types: felt, vinyl, metal and wood. Outside weather-stripping should be applied to door jambs and doorsills.

Recommended for inside weather-stripping of windows is V-shaped adhesive-back polypropylene.

Caulking and weather-stripping can give the homeowner savings in annual energy costs of as much as 10 percent or more.

4. Attic Ventilation

An attic should have two sets of vent openings located so air can flow into one, over the insulated area and out the other. A good arrangement is inflow vents at the eaves and exhaust vents at the pointed top of the roof or gable ends. Better yet is a combination of eave vents and continuous ridge vents. Turbine ventilators near the peak of the roof are another way to ventilate if natural ventilation is difficult to achieve, and they consume no energy because they are windpowered. If the vents are to be protected by screening or rain louvers, the recommended opening size should be increased. Estimated energy savings to the consumer can be 20 to 30 percent in heating and cooling costs.

5. Double-glazing of Windows

Double-glazing of windows diminishes the heat loss or gain through windows. This type of protection can amount to a savings of at least 10 percent on heating and cooling costs.

B. Major Appliances

The manufacturers are required to place labels showing estimated annual operating costs on their products. Also, the Energy Efficient Ratio should be displayed on the appliance.

The following appliances are suggested to increase energy-efficiency in the home:

- 1. Gas range pilotless ignition.
- 2. Oven with light and window (gas or electric).

3. Microwave Oven.
4. Thermostatic top burner.
5. Dishwasher with switch-controlled drying cycle.
6. Gas dryer with pilotless ignition.

C. Space Conditioning

Important energy conserving devices and methods for space conditioning are: central air systems, clogged filter indicators, set-back thermostats, fireplaces, and airtight wood-burning stoves.

1. Central Air Systems

Heat pumps should be used with central air system in all-electric houses. Heat pumps can cut electric usage for heating by 30 to 40 percent. The heat pumps should at least meet the State Minimum Energy Efficiency Ratio (EER) requirements. The ducts of central air systems should be insulated to a value of R-6, in order to lower heat gain or loss.

2. Clogged Filter Indicators

Clogged filter indicators warn when the space conditioning system needs a new filter in order to function more effectively. These are not yet in wide usage, but are available from SDG&E.

3. Set-back Thermostats

Set-back thermostats allow the house temperature drop at night to the low temperature desired while the occupants are asleep. Subsequently, the thermostat will turn on the heat as needed at the time desired in the morning, usually an hour or so before the occupants arise. Setback thermostats are not recommended to be used in conjunction with heat pumps. Energy savings can be as much as 16 percent for winter and 20 percent for summer.

4. Fireplaces

Fireplaces effectively add heat to a house while conserving energy, if the following recommendations are utilized:

- a. A positive damper is closed when there is no fire. This decreases the quantity of air in the house from escaping up the chimney.
- b. There should be no gas outlet.
- c. Glass doors covering the fireplace opening diminish the quantity of warm air in the house feeding the fire and rushing up the chimney.
- d. An outside combustion air supply provides the fire with adequate cool air.
- e. A heat exchanger runs air from a house through manifolds heated by the fire in the fireplace and propels the warmer air back into the house.
- f. This warmer air is distributed more effectively if the return air supply is connected to the central air duct system.

- g. Free-standing fireplaces and airtight wood-burning stoves also add heat to the house while conserving energy.

D. Hot Water

Significant energy savings are realized through the use of water flow restrictors, hot water piping insulation, and water heater blankets.

1. Water Flow Restrictors

Flow restrictors on showerheads and faucets should allow a maximum water flow of three gallons per minute, a decrease of approximately half compared to standard equipment. By reducing the flow to three gallons a minute, an average family can save about 40 percent in water usage.

2. Hot Water Piping

Hot water piping from the water heaters to all outlets should be insulated to at least R-6, diminishing heat loss through the pipes.

3. Water Heater Blankets

Water heaters should be insulated with blankets and/or located in the house to decrease lengthy pipe runs. Estimated savings to the consumer can be as much as 20 percent on water heating costs.

E. Lighting

The costs of providing a house with adequate lighting are decreased by fluorescent light fixtures and dimmer switches. Estimated energy savings to the consumer can be as much as 30 percent of light costs.

1. Fluorescent Light Fixtures

Fluorescent lamps provide more lumens per watt than incandescent bulbs. For example, a 40-watt fluorescent lamp emits 80 lumens per watt and a 60-watt incandescent bulb gives off only 14.7 lumens per watt.

2. Dimmer Switches

Dimmer switches offer the opportunity to lower the quantity of light and energy radiating from light bulbs when bright lighting is unnecessary or unwanted.

F. SDG&E Builders' Program

San Diego Gas and Electric Company provides a program for builders who wish to incorporate energy-efficient devices in their homes. The purposes of this program is to encourage the prudent and efficient use of energy in new residential construction. To qualify for SDG&E

Builders' Energy Conservation Home Program, builders are required to incorporate a variety of energy conservation devices and methods. The homes will be rated by a scoring system that is based on the relative energy-saving of various appliance and appurtenances that will be installed in each home.

The scoring system will be on the following areas:

1. Major appliances.
2. Space heating.
3. Water heating.
4. Weatherization.
5. Plumbing.
6. Chimney (fireplace).
7. Air conditioning.
8. Lighting.
9. Passive solar design features.
10. Active solar design features.

After an inspection by SDG&E, the builder will be given a maximum allowance of \$60 for each single family unit and \$50 for each multi-family unit, with a maximum allowance per project of \$6,000 for single family and \$5,000 for multi-family projects.

VI. GOVERNMENT REGULATIONS

There are a number of state and local regulations pertaining to the use of active systems, and solar-related matters, which will impact the development of Rancho Cielo. These are described briefly below.

- A. **State Solar Rights Act of 1978 (AB 3250, Levine, Effective January 1, 1978)**
 1. Prohibits local codes from prohibiting or unreasonably restricting solar energy systems. Discusses setbacks, height regulations, accessory structures and lot coverage. (Health and Safety Code, Section 17959.1)
 2. Provides for subdivision review for natural heating or cooling opportunities. (Government Code, Section 66473.1)
 3. Enables local government to require dedication of solar easements. (Civil Code, Section 714)

These requirements must be adopted by local ordinances. San Diego County has not yet done this with respect to easements.

- B. **State Solar Shade Control Act of 1978 (AB 2321, Imbrecht, effective January 1, 1979)**

Prohibits the placement of vegetation in locations which would shade a neighbor's solar collector. Does not apply to existing vegetation or replacement thereof.

The County may exempt itself from the act by a majority vote of the Board. This has not been done.

C. County of San Diego Ordinance No. 5324 (Effective October 1, 1978 for electric only area; October 1, 1980, for all unincorporated areas).

Required permit for new residential buildings to include solar water heating systems.

D. County of San Diego Ordinances No. 5589 (Effective September 21, 1979)

1. Establishes solar design features for new subdivisions. Requires all lots to each have 100 square feet of solar access measured 10 feet above the ground, unless one of five "unfeasibility" findings can be made.
2. Requires that final maps show all lots designated as "having solar access" or "not having solar access."

E. County of San Diego, Department of Planning and Land Use "Solar Water Heating Systems Informational Guidelines per San Diego County Ordinance No. 5324" (Issued October 1, 1979, Policy No. TUP-5324).

Provides information to builders regarding tax credits, code requirements, typical system installations, design and approval criteria, standard drawings, criteria for freeze protection and system sizing, a listing of certified solar collector system under the California Testing and Inspection Program for Solar Equipment (TIPSE) and a Monthly Solar Radiation Table for San Diego County.

VII. PROPOSALS FOR THE SPECIFIC PLAN

- A. The development of Rancho Cielo will include the following features in all structures, except as noted:
1. Solar water heating system (except offices).
 2. Passive solar design features.
 3. Maximum energy conservation measures.
- B. The CC&R's for Rancho Cielo will require that landscaping be maintained to preserve solar access to all structures and lots.
- C. Design Guidelines for Rancho Cielo, to be administered by the Association, will require all builders and designers to comply with passive solar and energy conservation measures.

VIII. PROPOSALS FOR RANCHO CIELO CC&R'S

- A. All persons in possession of lots and/or structures shall maintain and trim their trees, hedges and other landscaping so as to preserve the adjacent lots' and structures' unrestricted exposure to the winter sun as measured on December 21.

- B. All persons proposing to build a structure in Rancho Cielo shall submit their plans and working drawings to the Rancho Cielo Association Design Review Board. Such plans shall comply with the solar and conservation design criteria, in addition to the other criteria established in the Design Guidelines.

IX. SOLAR AND CONSERVATION DESIGN GUIDELINES

Plans for structures shall incorporate the following features, unless the proposer demonstrates that one or more of such features is unfeasible.

A. Solar Water Heating System

B. Passive Solar Design Features

1. South facing windows
2. Minimal north facing windows
3. Solar shading devices
 - a. Overhangs
 - b. Landscaping
4. Direct solar gain features
 - a. Skylights
 - b. Clerestories
 - c. Thermal walls
 - d. Thermal mass materials

C. Energy Conservation Measures

1. Weatherization
 - a. Insulation
 - b. Caulking
 - c. Weather-stripping
 - d. Attic ventilation
 - e. Double-glazed windows
2. Energy efficient appliances
3. Space conditioning
 - a. Heat pumps
 - b. Clogged filter indicators
 - c. Set-back thermostats
 - d. Energy-saving fireplaces
4. Water flow restrictions
5. Insulated hot water piping
6. Water heater blankets
7. Lighting
 - a. Use of fluorescent lights
 - b. Use of dimmer switches

List of Sources—Solar Feasibility Study

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Conservation Home Builder's Program.